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GOLD

Tenth Annual Report

GECO MINES
LIMITED

file

1963

G E C O M I N E S L I M I T E D

44 KING STREET WEST

TORONTO 1, CANADA

Incorporated under the Laws of the Province of Ontario

OFFICERS

J. A. H. Paterson, B.Sc., P.Eng.	-	-	-	-	-	-	-	-	President
R. V. Porritt, B.Sc.	-	-	-	-	-	-	-	-	Vice-President
W. Harrison	-	-	-	-	-	-	-	-	Secretary
D. A. Foster	-	-	-	-	-	-	-	-	Treasurer

BOARD OF DIRECTORS

R. T. Birks, Q.C.	-	-	-	-	-	-	-	-	Toronto, Ont.
John R. Bradfield, B.Sc., LL.D.	-	-	-	-	-	-	-	-	Toronto, Ont.
P. D. P. Hamilton, B.Sc., P.Eng.	-	-	-	-	-	-	-	-	Toronto, Ont.
R. M. P. Hamilton, B.Sc., P.Eng.	-	-	-	-	-	-	-	-	Toronto, Ont.
J. A. H. Paterson, B.Sc., P.Eng.	-	-	-	-	-	-	-	-	Toronto, Ont.
J. D. Perrin	-	-	-	-	-	-	-	-	Winnipeg, Man.
R. V. Porritt, B.Sc.	-	-	-	-	-	-	-	-	Toronto, Ont.
W. S. Row, B.Sc., P.Eng.	-	-	-	-	-	-	-	-	Toronto, Ont.
Norman C. Urquhart, C.B.E.	-	-	-	-	-	-	-	-	Toronto, Ont.

MINE OFFICE

Manitouwadge, Ontario - - - - John A. Graham, Mine Manager

TRANSFER AGENT AND REGISTRAR
THE STERLING TRUSTS CORPORATION
 372 Bay Street
 Toronto 1, Ont., Canada

Directors' Report to the Shareholders

a higher grade of ore

YOUR Directors submit their Tenth Annual Report, including Balance Sheet as at December 31, 1963, Operating Statement, and Mine Manager's Report for the year.

Operating profit before providing for taxes and write-offs amounted to \$12,414,000 compared with \$10,051,000 in 1962. The increase in the operating profit was due mainly to increased mill head grades, higher prices for silver and zinc, and a higher average premium on United States funds. Federal and Provincial income taxes were payable for the first time in 1963. After providing \$3,438,000 for all taxes and \$3,195,000 for depreciation and deferred development write-offs, the net profit amounted to \$5,781,000 or \$1.93 per share compared with \$4,419,000 or \$1.47 per share in 1962.

Current assets exceeded current liabilities by \$15,444,000 compared with \$12,044,000 in 1962.

Four interim dividends of 25¢ and an extra dividend of 25¢, totalling \$1.25 per share, were paid during the year. The Department of National Revenue has advised that the 20% depletion allowance will be applicable to dividends paid in 1963.

The Canadian Electrolytic Zinc plant at Valleyfield, Quebec, in which your company has a 9% ownership, completed construction and commenced production in late September, 1963.

Capital additions during the year amounted to \$2,047,000 for plant and \$560,000 for employee housing. Your company made a \$300,000 donation to The Improvement District of Manitouwadge for an addition to the High School.

Details of operations at the mine are given in the Mine Manager's Report. Ore reserves at the end of the year totalled 22,858,000 tons, averaging 2.06% copper, 4.62% zinc and 2.25 ounces silver. This is a net increase of 812,000 tons after milling 1,281,165 tons during 1963.

After nine years as President, Mr. Norman C. Urquhart announced that he wished to retire as President and his resignation was accepted by the Directors with regret. He will continue as a Director. Your Vice-President was elected to the presidency, and Mr. R. V. Porritt was elected Vice-President.

Your Directors wish to express their appreciation of the services of your Mine Manager, Mr. J. A. Graham, and his staff.

On behalf of the Board,

J. A. H. PATERSON,
President.

Dated at Toronto, Ontario, this 20th day of February, 1964.

Balance

December

(with comparative)

ASSETS

CURRENT

	1963	1962
Cash including short term deposits	\$ 6,850,293	\$ 4,987,878
Bonds and debentures — at cost (quoted market value \$3,625,950)	3,620,550	1,339,800
Concentrates at smelter, in transit and on hand	5,994,220	5,947,699
(estimated net returns under sales contracts)		
Accounts receivable	287,717	180,400
Stores and prepaid expenses	1,144,378	877,759
	<u>17,897,158</u>	<u>13,333,536</u>

FIXED — at cost

Plant, buildings and equipment	18,098,019	16,051,262
Less: Accumulated allowance for depreciation	6,770,721	5,644,120
	<u>11,327,298</u>	<u>10,407,142</u>
Employee housing	4,214,753	3,654,436
Less: Accumulated allowance for depreciation	1,385,675	1,093,485
	<u>2,829,078</u>	<u>2,560,951</u>
Power transmission line (subject to refund as power consumed)	436,324	531,163
Mining properties	218,948	216,069
	<u>14,811,648</u>	<u>13,715,325</u>

OTHER

Deferred development	10,252,872	10,252,872
(pre-production expenditures, shaft sinking and other capital development)		
Less: Written off to date	5,915,375	4,369,792
	<u>4,337,497</u>	<u>5,883,080</u>
	<u>\$37,046,303</u>	<u>\$32,931,941</u>

Sheet

, 1963

ures for 1962)

LIABILITIES

CURRENT

	1963	1962
Accounts payable and accrued payrolls	\$ 818,366	\$ 657,499
Provision for taxes	1,633,000	628,000
Dividends unclaimed	1,692	4,038
	<u>2,453,058</u>	<u>1,289,537</u>

DEFERRED

Deferred income taxes applicable to future years (see note)	<u>2,900,000</u>	<u>2,000,000</u>
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CAPITAL AND SURPLUS

Capital Stock:

Authorized and issued — 3,000,000 shares of par value of \$1.00 each	3,000,000	3,000,000
Contributed surplus — net premium on shares	8,642,937	8,642,937
Earned surplus — per statement	<u>20,050,308</u>	<u>17,999,467</u>
	<u>31,693,245</u>	<u>29,642,404</u>

NOTE: Write-offs claimed for tax purposes have exceeded the write-offs recorded in the company's accounts. Amounts equivalent to the resulting reductions in income taxes currently payable have been charged to earnings and set aside in the balance sheet as deferred income taxes applicable to future years.

Approved on behalf of the Board,

J. A. H. PATERSON }
R. V. PORRITT } Directors.

<u>\$37,046,303</u>	<u>\$32,931,941</u>
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Statement of Operations and Earned Surplus Account

For the Year Ended December 31, 1963

(with comparative figures for 1962)

Revenue:	1963	1962
Gross value of production including miscellaneous revenue at the mine	\$32,513,019	\$28,767,541
Expenditures:		
Cost of operations	20,427,696	18,875,224
(including mining and milling costs, treatment and delivery charges, administrative and general expenses and \$7,500 directors' fees)	12,085,323	9,892,317
Interest earned	328,212	158,823
	12,413,535	10,051,140
Provision for taxes:		
Federal and provincial income taxes	1,729,000	—
Deferred income taxes	900,000	2,000,000
	2,629,000	2,000,000
Ontario mining tax	808,818	627,622
	3,437,818	2,627,622
	8,975,717	7,423,518
Depreciation on plant, buildings and equipment and employee dwellings	1,649,543	1,458,451
Deferred development write-off	1,545,583	1,545,583
	3,195,126	3,004,034
Net profit for the year	5,780,591	4,419,484
Earned surplus as at December 31, 1962	17,999,467	16,576,233
Add: Profit on sale of bonds	20,250	3,750
	23,800,308	20,999,467
Deduct:		
Interim dividends paid:		
No. 11 — Mar. 29, 1963 @ 25¢ per share	\$ 750,000	
No. 12 — June 27, 1963 @ 25¢ per share	750,000	
No. 13 — Sept. 30, 1963 @ 25¢ per share	750,000	
No. 14 — Dec. 30, 1963 @ 50¢ per share	1,500,000	
	3,750,000	3,000,000
Earned surplus as at December 31, 1963	\$20,050,308	\$17,999,467

Auditors' Report to the Shareholders

We have examined the balance sheet of Geco Mines Limited as at December 31, 1963, and the statement of operations and earned surplus account for the year ended on that date. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

In our opinion, the accompanying balance sheet and statement of operations and earned surplus account present fairly the financial position of the company as at December 31, 1963 and the results of its operations for the year ended on that date, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

SIME, AYERS & CO.,

Chartered Accountants.

Toronto, Canada, February 10, 1964.

Mine Manager's Report to the President and Directors

HEREWITH is my tenth annual report covering the operations at the mine for the calendar year ending December 31, 1963.

MINE PROPERTY

The property now consists of 74 claims, of which 64 are patented. Of the remaining unpatented claims, seven were acquired near the end of the year and are contiguous to the north boundary of the original west group.

PRODUCTION

	1963	1962
		Comparative Figures
Ore Milled	1,281,165 dry tons	1,282,414
Calculated Grade		
Copper	1.88 %	1.81
Zinc	5.72 %	4.68
Silver	2.44 ounces per ton	2.14
Gold	Trace	Trace
Copper Concentrate Produced	87,449 short dry tons	82,058
Grade		
Copper	26.12 %	26.70
Silver	25.96 ounces per ton	24.33
Gold	0.051 ounces per ton	0.057
Zinc Concentrate Produced	110,040 short dry tons	91,641
Grade		
Zinc	54.10 %	53.86
Lead Concentrate Produced	3,553 short dry tons	2,218
Grade		
Lead	44.19 %	44.27
Silver	46.92 ounces per ton	49.81
Copper	3.24 %	3.35
Revenue Metals Contained in above Concentrates:		
Copper	45,905,359 pounds	43,968,322
Zinc	119,058,623 pounds	98,714,406
Lead	3,140,052 pounds	1,963,783
Silver	2,437,039 ounces	2,106,694
Gold	4,499 ounces	4,776

Copper concentrates continued to be shipped to the Noranda smelter. Zinc concentrates were shipped to six different destinations, including treatment plants in the United States, Europe, Japan and Valleyfield, Quebec. Shipment of lead concentrates continued to the smelter in western United States.

MILLING

The mill operated 95.32% of the possible time during the year and averaged 3,510 tons per day, as compared to 3,513 tons per day in 1962.

No serious problems were encountered anywhere in the crushing and milling operations. The capacity of the tailings sand recovery plant was doubled, and provided mine backfill on a continuous basis from September on.

Research into the application of various mill reagents continued. Economies in the use of liquid reagents became evident and facilities for storage and metering of these liquids are undergoing installation. Automatic alkalinity control is also in operation.

Metal recoveries for the year averaged:

Copper	95.07%
Silver	77.93%
Zinc	81.26%

MINING

Considerations of topography at the optimum location of the new No. 4 Shaft dictated that it be developed from surface by means of a main adit from the valley bottom, and headworks on the hillside above.

Excavation of the adit complex was completed early in the year. This shaft is a concrete-lined, circular opening, 21'6" in finished diameter, to be equipped with steel sets and guides throughout, and will thus be completely fire-proof. Specifications were written up and the contract awarded in April. Company and Contractor preparations were completed late in November, and by the end of the year, sinking had advanced 171 feet below the adit elevation, including a station cut on the 100-foot level. Crosscuts were driven to the No. 4 Shaft location on all four bottom levels from No. 1 Shaft, that is, the 1850, 2050, 2250 and 2450. Also a conveyor drive was begun from No. 1 Shaft, which will eventually deliver ore from No. 4 Shaft to the mill.

Limited exploration drifting was carried out east of No. 1 Shaft on the 2050 and 2250 levels. However, over 1,800 feet of exploration drift was driven on the 2450 level west of No. 1 Shaft, but no mineralization was encountered in drilling from it. Regular diamond drilling was carried out on the lower levels in order to block out ore to a section 800 feet east of No. 3 Shaft. Other underground diamond drilling footage was reduced along with the reduced exploration drifting.

Airways for both fresh air and return air ventilation were completed to the bottom level of the mine.

Stope preparation accounted for 77% of all heading advance in the mine for the year. This work was carried out on all levels and sub levels east of the shaft from the 450 to the 2050. Some stope preparation was also under way west of No. 1 Shaft and west of the "B" block recovery section.

Ore production was again 91% from blasthole mining and about 1.3% from cut and fill stoping. Stope preparation accounted for the remainder. The largest proportion of mill feed was from the "C" zone east of the shaft, but remnants were also recovered from the original "A" zone section, as well as from the "B" block.

During the year, 466,000 tons of backfill of all types were placed in the mine. Of this total, quarry rock accounted for 223,000 tons, and mill tailings sands for 187,000 tons.

SUMMARY OF DEVELOPMENT

Level	Advance in Feet						Tons Widening		Feet
	Development and Exploration			Stope Preparation			Development Exploration and Stope Preparation	Service Openings	Diamond Drilling
	Shafts	Drives	Raises	Drives	Raises	Total			
100	—	178	—	—	—	178	—	566	—
250	—	—	—	—	—	—	—	—	432
450	—	37	—	223	70	330	2,336	—	2,420
5B-Sub	—	—	—	6	—	6	32	—	—
5A-Sub	—	—	—	13	240	253	6	—	—
650	—	—	12	244	115	371	302	130	5,002
7A-Sub	—	—	—	65	166	231	657	—	—
850	—	34	258	534	244	1,070	2,365	121	5,168
9A-Sub	—	—	—	128	267	395	638	—	—
1050	—	29	109	1,927	421	2,486	916	75	—
11A-Sub	—	—	—	169	—	169	43	—	—
1250	—	66	243	1,327	174	1,810	1,351	—	7,173
13A-Sub	—	—	—	1,072	332	1,404	375	—	—
1450	—	—	—	1,279	572	1,851	1,997	1,638	—
15A-Sub	—	—	—	1,557	978	2,535	1,037	—	—
1650	—	—	206	2,053	665	2,924	1,388	1,548	3,750
17A-Sub	—	—	—	1,630	869	2,499	1,106	—	383
1850	—	16	128	2,432	1,138	3,714	3,090	1,538	17,248
19A-Sub	—	—	—	137	—	137	157	—	—
2050	—	698	738	89	191	1,716	1,013	—	4,329
2250	—	404	166	—	—	570	1,266	—	9,663
2450	—	2,108	273	—	—	2,381	1,154	2,414	13,565
#4 Shaft	276	170	252	—	—	698	1,142	4,755	—
TOTAL, 1963	276	3,740	2,385	14,885	6,442	27,728	22,371	12,785	69,133
TOTAL TO DATE	4,573	72,033	27,525	102,615	41,568	248,314	138,127	114,353	730,845

ORE RESERVES

	Tons	% Copper	% Zinc	Ozs. Silver
Total and averages for 1963	22,858,000	2.06	4.62	2.25
Total and averages for 1962	22,046,000	2.00	4.67	2.29

Grades and tonnages quoted include an allowance for dilution of 10%.

The prices for metals used to evaluate for ore reserve purposes were:

Copper 30¢ per pound Canadian funds	Silver \$ 1.00 per ounce Canadian funds
Zinc 11¢ per pound Canadian funds	Gold \$35.00 per ounce Canadian funds

PLANT OPERATION AND CONSTRUCTION

The main construction effort during the year was in connection with the No. 4 Shaft surface facilities. Installations here included large sinking hoist and compressor, water supply system, permanent transmission line and sub station, concrete headframe, heated ventilation air plant, adit portal house, and a change house-service building. At the end of the year all these plant components were in use and virtually complete.

In October, a decision was made to install a rotary kiln dryer for removal of moisture from zinc concentrates. The dryer building was closed in and foundation work was under way at the end of the year.

At the No. 1 plant, an experimental water filtration unit was placed in service.

EMPLOYEE HOUSING

During the building season, 20 single family dwellings were completed, two cottages were moved from camp to town, and one 55-man dormitory and two 20-man dormitories were completed and occupied. One dwelling unit was acquired by purchase. The total number of houses owned by the Company in the town becomes 311, and new dormitory capacity exists for 225 men. Near the end of December, catering facilities in the old camp were finally shut down.

PERSONNEL

The average number of employees on the payroll for the year was 563, as compared to 564 in 1962. The operating efficiency was 6.2 tons per day per payroll employee.

After protracted negotiations, a new three-year agreement, effective July 23, 1963, was signed with the Steelworkers' Local.

Accident experience during the year was better than in former years and considerably under the Ontario average.

ACKNOWLEDGEMENT

I am again pleased to record my appreciation of the services rendered during a busy year by Mr. R. R. Wainwright, General Superintendent, and by Messrs. L. S. Brooks, Mine Superintendent, C. Barnett, Mill Superintendent, F. E. Hill, Plant Superintendent, R. C. E. Bray, Chief Geologist, D. Nelson, Office Manager, and their staffs. The support and assistance of the Officers and Directors of the Company and of the Head Office Staff are also gratefully acknowledged.

Respectfully submitted,

JOHN A. GRAHAM,
Mine Manager.

Manitouwadge, Ontario, January 22, 1964.

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GECO MINES LIMITED
44 King Street West
Toronto 1, Canada

November 17, 1964.

TO THE SHAREHOLDERS:

A General Meeting of the Shareholders of Geco Mines Limited (Geco) is to be held on December 14, 1964, to consider and, if thought fit, to approve and confirm the execution of and to adopt an Amalgamation Agreement which has been entered into between Noranda Mines, Limited (Noranda) and Geco. A Notice calling the said General Meeting and an Information Booklet accompany this letter.

The Amalgamation Agreement provides for the statutory amalgamation, pursuant to The Corporations Act of Ontario, of Noranda and Geco into an amalgamated company (the Amalgamated Company) under the name of Noranda Mines Limited, and will result in a distribution of shares of the Amalgamated Company (after cancellation of inter-company holdings) on the following basis:

1 share of the Amalgamated Company for each 1 Noranda share outstanding

7 shares of the Amalgamated Company for each 8 Geco shares outstanding.

Your directors have given careful consideration to the proposed amalgamation and believe that it is fair and reasonable and in the best interests of the shareholders of Geco as well as the shareholders of Noranda. Accordingly your directors recommend that the shareholders of Geco approve and confirm the execution of the Amalgamation Agreement and adopt the same at the General Meeting.

If you do not intend to be present at the General Meeting would you kindly complete and return one of the enclosed forms of proxy. One form of proxy provides for the appointment of J. A. H. Paterson, President, or failing him, W. Harrison, Secretary, or failing him, D. A. Foster, Treasurer. It is the intention of the persons named in this form of proxy to vote in favour of the proposed amalgamation. If you wish to appoint some other person as your proxy you may use the other form enclosed.

On behalf of the Board,

J. A. H. PATERSON
President.

GECO MINES LIMITED

NOTICE OF GENERAL MEETING OF SHAREHOLDERS

NOTICE is hereby given that a General Meeting of the Shareholders of Geco Mines Limited (Geco) will be held in the Canadian Court, King Edward Sheraton Hotel, Toronto, Ontario, on Monday, December 14, 1964, at the hour of 10:30 o'clock in the forenoon (Toronto Time) for the following purposes:

- (1) To consider and, if thought fit, to approve and confirm the execution of and to adopt an agreement made as of the 13th day of November, 1964 (the Amalgamation Agreement) providing for the amalgamation pursuant to The Corporations Act of Ontario of Noranda Mines, Limited (Noranda) and Geco under the name Noranda Mines Limited, upon and subject to the terms and conditions set forth in the Amalgamation Agreement.
- (2) To authorize the directors and/or the proper officers of Geco to execute, under the corporate seal of Geco or otherwise, such documents and to take such other action as in their opinion may be necessary or desirable to carry out the provisions of the Amalgamation Agreement.

A copy of the Amalgamation Agreement is attached as Exhibit A to the Information Booklet which accompanies this Notice and forms part hereof.

The following directors of Geco, viz: John R. Bradfield, P. D. P. Hamilton, R. M. P. Hamilton, J. A. H. Paterson, J. D. Perrin, R. V. Porritt, W. S. Row and Norman C. Urquhart, are interested in the Amalgamation Agreement in that they are directors and/or officers or executives and/or shareholders of Noranda as indicated in the Information Booklet under the heading **Interlocking Interests of Directors and Officers.**

DATED this 17th day of November, 1964.

By Order of the Board,

W. HARRISON

Secretary.

INFORMATION BOOKLET

November 17, 1964

Meetings of Shareholders

General Meetings of the Shareholders of Noranda Mines, Limited (Noranda) and of Geco Mines Limited (Geco) have been called to consider, and, if thought fit, to approve and confirm the execution of and to adopt the Amalgamation Agreement dated as of the 13th day of November, 1964 (the Amalgamation Agreement) which has been entered into between Noranda and Geco. The Amalgamation Agreement provides for the statutory amalgamation of Noranda and Geco pursuant to Section 96 of The Corporations Act of Ontario, and if the execution thereof is approved and confirmed, and the Amalgamation Agreement is adopted by the requisite number of votes of the shareholders of Noranda and Geco at the Meetings, letters patent of amalgamation confirming the Amalgamation Agreement and amalgamating Noranda and Geco and continuing them as one company under the name Noranda Mines Limited (the Amalgamated Company) will be applied for. Each of Noranda and Geco will contribute to the Amalgamated Company its properties, undertaking and assets, and the Amalgamated Company will assume all the debts, liabilities and obligations of each of Noranda and Geco. By virtue of such amalgamation, the shares of each of Noranda and Geco (except Geco shares held by Noranda) will be converted into shares of the Amalgamated Company on the basis of one share of the Amalgamated Company for each one share of Noranda and seven shares of the Amalgamated Company for each eight shares of Geco, all as set out below under the heading **Basis of Conversion of Shares**. As to fractions resulting from conversion of Geco shares see page 4 of this Booklet under the heading **Share Certificates**.

In order to implement the amalgamation, the Amalgamation Agreement must be adopted by at least two-thirds of the votes cast at the General Meetings of the Shareholders of Noranda and Geco respectively and must thereafter be confirmed by letters patent of amalgamation issued pursuant to The Corporations Act of Ontario.

Purpose and Effect of Proposed Amalgamation

Noranda and Geco complement each other in many respects. The primary objective of the amalgamation is to create a combined company which will be stronger than Noranda and Geco operating as separate entities.

Noranda has the financial resources, the know-how and the personnel required for industrial expansion, for exploration and for the development of new mines. Originally, the operations of Noranda were based almost entirely on copper and gold but, particularly over the past ten years, these operations have become increasingly diversified. During this period Noranda has experienced substantial growth in sales, variety of products and in earnings. It is expected that this growth will continue.

Geco's major asset is its mine near Manitouwadge, Ontario, which produces mainly copper and zinc concentrates. Geco has no copper smelting or refining facilities and no independent marketing organization. Geco's profits are directly linked to and dependent on prevailing prices for copper and zinc and are subject to fluctuations in these prices. Copper and zinc prices have been increasing in the past two years and currently are at abnormally high levels. Although the ore reserves of the mine are large, the present high metal prices cannot be expected to continue indefinitely, and a significant increase in production is improbable. Accordingly, it may be difficult to maintain profits at present levels.

By virtue of the amalgamation, the Amalgamated Company would become the owner of, and Noranda shareholders would acquire a direct equity in, an Ontario mine with large ore reserves which would be of substantial assistance in maintaining a mining base and should ensure continuance of a full depletion allowance for shareholders.

The shareholders of Geco, through the amalgamation, would become shareholders of an integrated and growing mining, smelting, refining, fabricating and marketing complex, deriving profits from a variety of natural resources. Assuming that the market price of shares of the Amalgamated Company will correspond with that of Noranda shares, then shareholders of Geco will receive shares of the Amalgamated Company having a market price 11.3% above the market price of Geco shares, based on closing prices on the Toronto Stock Exchange November 11, 1964.

Basis of Conversion of Shares

Initially, the basis for the conversion of the shares of Noranda and Geco into shares of the Amalgamated Company was determined by the managements of Noranda and Geco. As the assets and earnings of Noranda are substantially greater than those of Geco, it was considered that Noranda shares should be converted into shares of the Amalgamated Company on a one-for-one basis, and that the basis for conversion of Geco shares should then be determined in relation to Noranda shares. In determining the basis for conversion of Geco shares, which was fixed at seven shares of the Amalgamated Company for eight shares of Geco, a variety of factors was taken into account. These included, with respect to both Noranda and Geco, current and estimated future earnings and dividends; diversity and stability of sources of income; growth possibilities; nature, variety and value of assets; and market prices of Noranda and Geco shares.

Subsequently, the boards of directors of Noranda and Geco, at meetings held on November 12 and 13, 1964 respectively, approved the proposal for amalgamation and the basis of conversion which in their opinion is fair to the shareholders of both companies.

The basis of converting the issued shares of the amalgamating companies into shares of the Amalgamated Company is as follows:

- (i) for each one issued share of Noranda, one share of the Amalgamated Company;
- (ii) for each eight issued shares of Geco (held by shareholders other than Noranda) seven shares of the Amalgamated Company;
- (iii) all issued shares of Geco presently held by Noranda will be cancelled.

Noranda holds 1,249,424 Geco shares. Geco does not hold any Noranda shares. Noranda and Geco have agreed that during the amalgamation proceedings Noranda will not buy or sell any Geco shares and Geco will not buy any Noranda shares.

On completion of the amalgamation, shares in the Amalgamated Company will be outstanding as follows:

<u>Shares of Amalgamating Companies</u>	<u>Shares of Amalgamated Company</u>
(i) 10,125,306* outstanding Noranda shares converted on a 1 for 1 basis into.....	10,125,306*
(ii) 1,750,576 outstanding Geco shares (3,000,000 less 1,249,424 held by Noranda) converted on an 8 for 7 basis into.....	1,531,754
(iii) 1,249,424 outstanding Geco shares (held by Noranda) cancelled	—
	<u>11,657,060*</u>

*These figures are or are based on the number of Noranda shares outstanding as at the close of business November 11, 1964. The number of outstanding Noranda shares is subject to increase to the extent by which outstanding options under Noranda's employee stock option plan for the purchase of a maximum of 32,993 Noranda shares are exercised. Any increase in the number of outstanding Noranda shares between the close of business November 11, 1964 and the effective date of the amalgamation would mean a corresponding increase in the number of shares of the Amalgamated Company to result from the conversion of outstanding Noranda shares.

Share Capital Position of the Amalgamated Company

The authorized capital of the Amalgamated Company will be 15,000,000 shares without par value, of which 11,657,060 shares will be outstanding upon completion of the amalgamation as indicated in the table preceding, and subject to increase as noted thereunder.

Interlocking Interests of Directors and Officers

The following table indicates the nature of the interest of directors and officers of Noranda and Geco in each company:

<u>Name</u>	<u>Noranda</u>	<u>Geco</u>
R. T. BIRKS	—	{ Director { Shareholder
JOHN R. BRADFIELD	{ Chairman of the Board { Director { Shareholder	{ Director { Shareholder
F. M. CONNELL	{ Director { Shareholder	—
E. K. CORK	{ Treasurer { Shareholder	—
A. O. DUFRESNE	{ Director { Shareholder	—
D. A. FOSTER	{ Executive { Shareholder	{ Treasurer { Shareholder
HON. GEORGE B. FOSTER	{ Director { Shareholder	—
P. D. P. HAMILTON	Shareholder	{ Director { Shareholder
R. M. P. HAMILTON	Shareholder	{ Director { Shareholder
W. HARRISON	Shareholder	{ Secretary { Shareholder
L. G. LUMBERS	{ Director { Shareholder	—
J. A. H. PATERSON	{ Executive { Shareholder	{ President { Director { Shareholder
J. D. PERRIN	Shareholder	{ Director { Shareholder
R. V. PORRITT	{ President { Director { Shareholder	{ Vice-President { Director { Shareholder
HON. JEAN RAYMOND	{ Director { Shareholder	—
W. S. ROW	{ Vice-President { Director { Shareholder	{ Director { Shareholder
J. D. SIMPSON	{ Director { Shareholder	—
JULES R. TIMMINS	{ Director { Shareholder	—
LEO H. TIMMINS	{ Director { Shareholder	—
NORMAN C. URQUHART	{ Vice-President { Director { Shareholder	{ Director { Shareholder
C. H. WINDELER	{ Secretary { Shareholder	Shareholder

Financial Statements

The following financial statements are set out on pages 12 to 22 , both inclusive, of this Booklet:

- (i) audited consolidated balance sheet of Noranda and its consolidated subsidiaries as at December 31, 1963;
- (ii) audited consolidated statement of operations and consolidated earned surplus of Noranda and its consolidated subsidiaries for the year ended December 31, 1963;
- (iii) audited balance sheet of Geco as at December 31, 1963;
- (iv) audited statement of operations and earned surplus account of Geco for the year ended December 31, 1963;
- (v) unaudited consolidated statement of operations and consolidated earned surplus of Noranda and its consolidated subsidiaries for the five years and nine months ended September 30, 1964;
- (vi) unaudited statement of operations and earned surplus account of Geco for the five years and nine months ended September 30, 1964;
- (vii) unaudited pro forma consolidated balance sheet of the Amalgamated Company, including the balance sheet of Geco and the consolidated balance sheet of Noranda and its consolidated subsidiaries, all as at September 30, 1964.

Stock Exchange Listings

Applications will be made to list the shares of the Amalgamated Company on the Toronto, Montreal and Vancouver Stock Exchanges.

Proposed Directors of the Amalgamated Company

It is proposed that the first directors of the Amalgamated Company will be: John R. Bradfield, F. M. Connell, A. O. Dufresne, Hon. George B. Foster, L. G. Lumbers, R. V. Porritt, Hon. Jean Raymond, W. S. Row, J. D. Simpson, Jules R. Timmins, Leo H. Timmins and Norman C. Urquhart.

By-Laws

By-laws numbered 1 to 6 set out in Schedule X to Exhibit A hereto, together with existing by-law number 29 of Noranda, which is to be designated by-law number 7 of the Amalgamated Company and which is also set out in said Schedule X, will be the by-laws of the Amalgamated Company until repealed, amended, altered or added to by by-law.

Tax Position of Canadian Shareholders

In the opinion of counsel for Noranda and for Geco respectively the amalgamation will not result in any liability for Canadian income tax to shareholders of either Noranda or Geco.

Tax Position of United States Shareholders

An application has been made to the Commissioner of Internal Revenue of the United States of America for a ruling to the effect that for purposes of United States federal income tax (i) no gain or loss will be recognized to the shareholders of either Noranda or Geco upon the exchange of their shares for shares in the Amalgamated Company, and (ii) the basis of shares in the Amalgamated Company received by shareholders of Noranda and Geco will be the same as the basis of the shares exchanged therefor.

Share Certificates

If the Amalgamation Agreement is adopted by the shareholders of Noranda and Geco and letters patent amalgamating these companies are issued, shareholders will be notified with respect to the surrender of outstanding Noranda and Geco share certificates in exchange for certificates for shares of the Amalgamated Company. A person entitled to receive a fraction of a share of the Amalgamated Company will not be entitled to be registered on its books in respect thereof but will, however, be entitled to receive a bearer fractional certificate in respect of such fraction. Fractional certificates aggregating a whole share of the Amalgamated Company will entitle the bearer thereof to receive in exchange therefor a certificate for a whole share of the Amalgamated Company and to be registered on the books of the Amalgamated Company as a shareholder in respect thereof.

Earnings, Dividend Records and Market Prices

NORANDA

Noranda was incorporated under the laws of Ontario in 1922 and its present authorized capital is 12,000,000 shares without par value of which as at the close of business November 11, 1964, 10,125,306 shares were issued and outstanding and 32,993 shares were under options outstanding under Noranda's employee stock option plan at prices ranging from \$18.45 to \$39.23 per share.

Noranda has paid dividends annually since 1930. During 1964, Noranda has paid three quarterly dividends totalling \$1.00 per share, and has declared a regular fourth quarter dividend of 35¢ per share and a year end extra dividend of 10¢ per share, both payable December 14, 1964 to shareholders of record November 20, 1964.

The closing market price of Noranda shares on November 11, 1964 on the Toronto Stock Exchange was \$50 $\frac{1}{4}$. From January 1, 1959 to November 11, 1964 (after adjustment for the two-for-one share split in 1962) the market price of Noranda shares on the Toronto Stock Exchange has ranged from a low of \$18 to a high of \$50 $\frac{5}{8}$ with the high and low prices for the current and past five years as follows:

	<u>1964*</u>	<u>1963</u>	<u>1962</u>	<u>1961</u>	<u>1960</u>	<u>1959</u>
High.....	50 $\frac{5}{8}$	41 $\frac{1}{2}$	33 $\frac{5}{8}$	29 $\frac{7}{8}$	24 $\frac{3}{8}$	29
Low.....	40 $\frac{1}{8}$	31 $\frac{1}{2}$	25 $\frac{7}{8}$	20	18	22 $\frac{1}{8}$

*to November 11.

The following table sets out (after adjustment for the share split in 1962) Noranda's earnings per share (calculated on the average number of shares outstanding in the year) and dividends paid per share for the five years and nine months ended September 30, 1964:

	<u>9 months</u> <u>1964</u>	<u>1963</u>	<u>1962</u>	<u>1961</u>	<u>1960</u>	<u>1959</u>
Earnings per share						
From operations.....	\$.99	\$1.19	\$1.12	\$.99	\$.93	\$.88
From investments.....	.93	1.01	.73	.59	.50	.48
	<u>\$1.92</u>	<u>\$2.20</u>	<u>\$1.85</u>	<u>\$1.58</u>	<u>\$1.43</u>	<u>\$1.36</u>
Net earnings of unconsolidated subsidiaries not taken into Noranda earnings.....	<u>\$.19</u>	<u>\$.33</u>	<u>\$.68</u>	<u>\$.22</u>	<u>\$.57</u>	<u>\$.16</u>
Dividends paid per share.....	<u>\$1.00</u>	<u>\$1.30</u>	<u>\$1.125</u>	<u>\$1.05</u>	<u>\$1.00</u>	<u>\$1.00</u>

GECO

Geco was incorporated under the laws of Ontario in 1953 and its present authorized capital is 3,000,000 shares of the par value of \$1.00 each, all of which are issued and outstanding.

Geco has paid dividends annually since 1960. During 1964, Geco has paid three quarterly dividends totalling 90¢ per share, and has declared a regular fourth quarter dividend of 30¢ per share and an extra dividend of 10¢ per share, both payable December 14, 1964 to shareholders of record November 23, 1964.

The closing market price of Geco shares on November 11, 1964 on the Toronto Stock Exchange was \$39 $\frac{1}{2}$. From January 1, 1959 to November 11, 1964 the market price of Geco shares on the Toronto Stock Exchange has ranged from a low of \$15 to a high of \$40 $\frac{1}{4}$ with the high and low prices for the current and past five years as follows:

	<u>1964*</u>	<u>1963</u>	<u>1962</u>	<u>1961</u>	<u>1960</u>	<u>1959</u>
High.....	40 $\frac{1}{4}$	31 $\frac{5}{8}$	29 $\frac{3}{4}$	27 $\frac{3}{8}$	19 $\frac{5}{8}$	24 $\frac{1}{2}$
Low.....	31	25 $\frac{1}{2}$	22 $\frac{1}{2}$	17 $\frac{3}{4}$	15	15 $\frac{7}{8}$

*to November 11.

The following table sets out Geco's earnings per share and dividends paid per share for the five years and nine months ended September 30, 1964:

	<u>9 months</u> <u>1964</u>	<u>1963</u>	<u>1962</u>	<u>1961</u>	<u>1960</u>	<u>1959</u>
Earnings per share.....	\$1.85	\$1.93	\$1.47	\$1.22	\$1.80	\$2.05
Dividends paid per share.....	.90	1.25	1.00	1.00	.50	nil

Offer to Purchase Outstanding Shares of Canada Wire and Cable Company, Limited

On November 5, 1964 Noranda announced that it intended to make offers (the Offers) to purchase all the outstanding Class "A" and Class "B" Shares of Canada Wire, other than shares held by Noranda, on the following basis:

- 4 Noranda shares plus \$5.00 for each 1 Class "A" Share of Canada Wire; and
4 Noranda shares plus \$5.00 for each 10 Class "B" Shares of Canada Wire.

In view of the proposed amalgamation of Noranda and Geco, the Offers to Canada Wire shareholders will not be made until after completion of the amalgamation proceedings. If and when the amalgamation becomes effective the Offers will then be made by the Amalgamated Company instead of by Noranda upon the basis set out above except for the substitution of Amalgamated Company shares for shares of Noranda.

The Offers are to be made concurrently and are to be open for acceptance for a period of four months. If the requirements of Section 128 of the Companies Act of Canada are met with respect to either or both of the Offers, the provisions of that Section will be invoked with a view to the acquisition of any shares of Canada Wire in respect of which the Offers have not been accepted.

There were 342 Class "A" Shares and 1,075,505 Class "B" Shares of Canada Wire outstanding as at the close of business November 11, 1964 and 7,575 Class "B" Shares under option to certain employees of Canada Wire. As at November 11, 1964, 674,505 Class "B" Shares were owned by Noranda and, assuming the amalgamation is implemented, will be owned by the Amalgamated Company. Thus, if all the outstanding Class "A" Shares and the remaining Class "B" Shares were acquired by the Amalgamated Company as a result of the Offers, a total of 164,798 shares of the Amalgamated Company would be issued in exchange therefor.

Information concerning Canada Wire is set out on page 9 of this Booklet.

Geco Mines Limited

As at November 11, 1964, Noranda held 1,249,424 shares of Geco, or approximately 42% of its issued and outstanding capital. The total share interest in Geco of Noranda and of companies in which Noranda has a substantial investment is approximately 55%, and the total beneficial share interest of Noranda, direct and indirect, in Geco is approximately 48%.

Geco owns and operates a copper-zinc-lead-silver-gold mine in the Manitouwadge area of Ontario which was brought into production in 1957. Geco's mining property consists of 74 mining claims. The rated capacity of its mill is 3,500 tons per day. Geco has investments in bonds and short term notes with a quoted market value of approximately \$15,071,000 as at October 30, 1964.

At January 1, 1964, estimated proven ore reserves were 22,858,000 tons grading 2.06% copper, 4.62% zinc and 2.25 ounces of silver respectively per ton (with minor amounts of lead and gold) after a 10% allowance for dilution. Production during the five years and nine months ended September 30, 1964 has been as follows:

	1959	1960	1961	1962	1963	9 months 1964
Tons milled—total	1,290,279	1,294,077	1,276,778	1,282,414	1,281,165	972,700
Tons milled per day	3,535	3,535	3,498	3,513	3,510	3,550
Grade of ore milled:						
Copper %	2.10	1.76	1.54	1.81	1.88	2.05
Zinc %	2.38	2.74	3.99	4.68	5.72	5.59
Silver oz.	1.30	1.36	1.52	2.14	2.44	2.81
Metal content of concentrates:						
Copper—tons	25,903	21,761	18,566	21,984	22,953	18,800
Zinc—tons	23,083	28,362	42,005	49,357	59,529	42,842
Lead—tons	—	—	403	982	1,570	1,329
Silver—oz.	1,363,525	1,391,177	1,526,976	2,106,694	2,437,039	1,807,000
Gold—oz.	5,706	5,071	4,405	4,776	4,499	3,300

The copper concentrate produced is treated at Noranda's smelter at Noranda, Quebec. Part of the zinc concentrate is treated at an electrolytic zinc reduction plant at Valleyfield, Quebec, in which Geco has a 9% ownership, and the remainder is sold to various smelters outside Canada. The lead concentrate is sold to a smelter in the United States.

In 1963 Geco began sinking and equipping a new shaft from surface to a depth of 4,050 feet at a point some 4,000 feet south-east of the main plant. This work, which it is now estimated will cost over \$10,000,000 and will not be completed until the middle of 1968, is necessary for the development and mining of the

easterly downward plunge of the orebody. The work was not undertaken for the purpose of increasing the rate of production and there are no plans for increasing the current daily tonnage. Owing to ground conditions in the mine, it is doubtful whether an appreciable increase in daily tonnage could be sustained.

Noranda Mines, Limited

The operations of the Noranda complex are carried on throughout Canada and to some extent in the United States of America, Mexico, Central America, Chile, the United Kingdom, parts of Europe and Australia.

A brief description of Noranda's principal operations follows:

Copper

Noranda owns and operates the Horne mine, a copper-gold producer, located in the Rouyn-Noranda district in the Province of Quebec. At January 1, 1964, estimated reserves in the main sulphide orebody were 6,195,500 tons grading 2.39% copper and 0.18 ounce gold per ton, and reserves of fluxing and other ores apart from the main orebody were 4,993,200 tons.

The concentrator and smelter at the mine have a daily capacity of about 4,200 tons and 3,000 tons respectively. In 1963, 23,079 tons of copper and 198,400 ounces of gold were produced from Horne mine ores.

Gaspe Copper Mines, Limited (Gaspe Copper), a Noranda subsidiary, also produces copper from its mine and smelter at Murdochville, Quebec. The Noranda and Gaspe Copper smelters also treat on a custom basis copper concentrates from 17 other companies, in five of which Noranda has a substantial investment. The copper anodes produced at these smelters are shipped to Canadian Copper Refiners Limited (Canadian Copper Refiners), a Noranda subsidiary, at Montreal East, Quebec, for refining into electrolytic copper. The refined copper is then pooled for the purpose of sale through Noranda Sales Corporation Ltd., a wholly-owned subsidiary of Noranda. Copper production of Canadian Copper Refiners during 1963 was 262,000 tons, 69% of the total Canadian production of refined copper for that year.

Gold and Silver

In 1963, Canadian Copper Refiners produced 581,000 ounces of gold as a by-product of copper refining. Other subsidiaries and companies in which Noranda has a substantial investment produced 523,000 ounces of gold during 1963. The total of 1,104,000 ounces represents about 28% of the total Canadian production of gold in 1963.

Also as a by-product of copper production, Canadian Copper Refiners produced 9,347,000 ounces of silver in 1963, 32% of the total Canadian production of silver for that year.

Zinc

The entry of certain companies in which Noranda has a substantial investment (Geco Mines Limited, Mattagami Lake Mines Limited, Normetal Mining Corporation, Limited, Orchan Mines Limited and Quemont Mining Corporation, Limited) into the zinc metal markets of the world is of recent origin, but these companies with their combined annual production of nearly 540,000 tons of zinc concentrate containing some 260,000 tons of recoverable zinc metal are now established as strong forces in those markets. About 187,000 tons of this combined production of zinc concentrate is treated at an electrolytic zinc reduction plant at Valleyfield, Quebec, owned and operated by these companies, and the balance of their zinc concentrate production is sold and exported. These five companies account for about 8% of the free world's mine production of zinc.

The electrolytic zinc reduction plant at Valleyfield was completed in 1963 at a cost of \$16,300,000. The initial rated capacity of the plant was 200 tons per day, which is being increased to a rated capacity of 300 tons per day at an estimated cost of \$8,500,000.

General Smelting Company of Canada, Ltd., a manufacturer of secondary zinc and aluminum products, is also owned by these five companies. This company is moving its operations from Hamilton to Burlington, Ontario.

The ownership of Geco, Mattagami Lake, Normetal, Orchan and Quemont in the zinc plant and in General Smelting Company of Canada, Ltd. is as follows: Geco 9%; Mattagami Lake 62½%; Normetal 4%; Orchan 18¾% and Quemont 5¾%.

Iron Ore

Brynnor Mines Limited, a Noranda subsidiary, produces magnetite concentrate at its Kennedy Lake mine in British Columbia. The concentrate is sold to Japanese steel mills under contract.

Molybdenum

Noranda owns a molybdenum property at Boss Mountain, British Columbia, which is scheduled to come into production in April, 1965. Production is estimated at 3,500,000 pounds of molybdenum in concentrate per year.

Endako Mines Limited, which is to become a subsidiary of Placer Development Limited in which Noranda has a substantial investment, owns a molybdenum property at Endako, British Columbia scheduled to come into production in August, 1965. Production is estimated at 10,000,000 pounds of molybdenum in concentrate per year.

The estimated production of molybdenum concentrate and molybdenum products from the Boss Mountain and Endako properties is equivalent to 9% of the free world's production.

Lumber and Pulp

Northwood Mills Ltd., a Noranda subsidiary, and The Mead Corporation, of Dayton, Ohio, each have a 50% interest in Northwood Pulp Ltd. Northwood Pulp Ltd. holds a pulpwood harvesting licence covering 2,500,000 productive acres of timber land and is in the course of constructing a kraft pulp mill with a capacity of 625 tons per day, both in the area of Prince George, British Columbia. Production of pulp is expected to begin in mid-1966. Northwood Mills operates two sawmills in the southern interior of British Columbia, and Northwood Pulp has acquired three sawmills in the Prince George area of British Columbia. The combined capacity of these five sawmills is some 140,000,000 board feet of lumber per year. The cost of the pulp mill being constructed and the sawmills acquired by Northwood Pulp is about \$60,000,000, for which financing has been arranged.

Copper and Plastic Products

Through Noranda Copper Mills Ltd. and Canada Wire and Cable Company, Limited, a wide range of copper and brass mill products, wire cable, electrical and communicating wires and cables are produced at plants across Canada. Canada Wire and Cable Company, Limited and Noranda Copper Mills Ltd. are associated in the manufacture of plastic pipe and other plastic products through Grandview Industries (1964) Limited.

Potash

Noranda recently concluded the purchase from Consolidated Morrison Explorations, Limited, in consideration of 150,000 shares of Noranda, of certain Saskatchewan potash permits covering lands containing indicated recoverable ore reserves of some 200,000,000 tons grading over 29% K₂O.

Noranda also holds an option, exercisable on or before November 23, 1965, to elect to bring the Saskatchewan potash property of Tombill Mines Limited into production, and to obtain an 80% interest in a company to be incorporated to hold this property in the event the option is exercised. Exploration work is continuing on this property.

Exploration and Research

The Noranda complex carries on an extensive exploration and development programme in Canada and elsewhere. During 1963, Noranda and subsidiaries of Noranda expended approximately \$2,000,000 on this programme, and, in addition, the combined exploration and development expenditures of other companies in which Noranda has a substantial investment exceeded \$1,150,000.

Recently the research activities of the Noranda complex have been consolidated and are now being carried out at the Noranda Research Centre at Pointe Claire, Quebec, which was established to maintain and enhance through research the competitive position of the Noranda group in world markets.

Principal Subsidiaries of Noranda

AUNOR GOLD MINES LIMITED (55% owned by Noranda)

Aunor owns and operates a gold mine near Timmins, Ontario, which produced 89,400 ounces of gold in 1963. Estimated ore reserves at January 1, 1964 were 1,193,000 tons averaging 0.35 ounce gold per ton. Net profits in 1963 were \$669,000 and for the nine months ended September 30, 1964 were \$369,000. Aunor has investments with a quoted market value of approximately \$4,800,000 as at October 30, 1964. During 1964 Aunor has declared four quarterly dividends totalling \$400,000.

BRYNNOR MINES LIMITED (100% owned by Noranda)

Brynnor, also referred to on page 7 of this Booklet, owns and operates a mine which came into production in 1962 with indicated ore reserves at that time of 10,000,000 tons, averaging about 52% iron, of which

about half could be mined by open pit methods. Production is at the rate of 700,000 long tons of magnetite concentrate per year. Brynnor's accounts are included in the consolidated financial statements of Noranda and its consolidated subsidiaries set out in this Booklet.

CANADA WIRE AND CABLE COMPANY, LIMITED (63% owned by Noranda. See page 5 of this Booklet for information as to offers for the purchase of the other outstanding shares of Canada Wire.)

Canada Wire has plants at or near Vancouver, British Columbia; Weyburn, Saskatchewan; Fort Garry, Manitoba; Toronto and Simcoe, Ontario; Montreal East, Quebec; and Lancaster, New Brunswick. Telecables and Wires Limited, in which Canada Wire has a 55% share interest, manufactures telephone cables at Fort Garry, Manitoba. Wire Rope Industries of Canada Limited, in which Canada Wire has a 40% share interest, produces steel wire rope in four plants in Canada. Canada Wire also has interests in wire and cable producers in Mexico, Columbia, Venezuela and the Dominican Republic.

As at September 30, 1964 Canada Wire's net assets (at book value less liabilities including funded debt of approximately \$5,000,000) amounted to \$18,500,000. Net profits in 1963 were \$1,243,000 and for the nine months ended September 30, 1964 were \$1,022,000. During 1964 Canada Wire has declared four quarterly dividends totalling \$645,000.

CANADIAN COPPER REFINERS LIMITED (93% owned by Noranda)

Canadian Copper Refiners, also referred to on page 7 of this Booklet, owns and operates the second largest electrolytic copper refinery in the world. Canadian Copper Refiners' accounts are included in the consolidated financial statements of Noranda and its consolidated subsidiaries set out in this Booklet.

EMPRESA MINERA DE EL SETENTRION (61% owned by Noranda)

El Setentrion owns and operates a gold mine in Nicaragua, Central America, which produced 51,600 ounces of gold in 1963. On January 1, 1964 the ore reserves of El Setentrion were estimated to be 174,400 tons, averaging 0.49 ounce gold per ton. Net profits in 1963 were \$274,000 (U.S.).

Chile Canadian Mines S.A., a subsidiary of El Setentrion, owns and operates a copper mine in Northern Chile with an estimated 2,000,000 tons of oxide ore, having an indicated copper content of 2.9%.

GASPE COPPER MINES, LIMITED (97% owned by Noranda)

Gaspe Copper, also referred to on page 7 of this Booklet, owns and operates Needle Mountain mine, a copper mine in the Gaspé Peninsula of Quebec, and also owns the adjoining Copper Mountain mine, which is scheduled to come into production late in 1967, at an initial rate of 4,000 tons of ore per day. The cost of bringing the Copper Mountain mine into production will be approximately \$8,000,000. The present capacity of the concentrator of Gaspe Copper at Murdochville, Quebec of 7,350 tons per day will be increased at a cost of \$4,500,000 to 11,000 tons per day to treat the additional ore. Gaspe Copper's estimated ore reserves at January 1, 1964 were 54,866,000 tons with an estimated copper content of 1.20%. The smelter production of Gaspe Copper in 1963 included 47,800 tons of copper, 9,900 ounces of gold and 516,000 ounces of silver. Net profits in 1963 were \$5,440,000 and for the nine months ended September 30, 1964 were \$3,691,000. Gaspe Copper holds bonds with a book value of \$6,300,000. Gaspe Copper commenced payment of dividends in 1963. During 1964 Gaspe Copper has declared four quarterly dividends totalling \$3,180,000.

HALLNOR MINES, LIMITED (95% owned by Noranda)

Hallnor has a gold mine in the Porcupine area in Ontario which produced 43,800 ounces of gold in 1963. The estimated ore reserves at January 1, 1964 were 199,400 tons, containing an estimated 0.34 ounce gold per ton. Net profits in 1963 were \$371,000 and for the nine months ended September 30, 1964 were \$320,000. Hallnor has investments with a quoted market value of \$5,600,000 as at October 30, 1964. During 1964 Hallnor has declared four quarterly dividends totalling \$320,000.

NORANDA COPPER MILLS LTD. (100% owned by Noranda through Noranda Copper and Brass Limited)

Noranda Copper Mills Ltd. produces a complete range of copper and brass mill products at plants at New Westminster, British Columbia, and Montreal East, Quebec. The accounts of Noranda Copper Mills are included in the consolidated financial statements of Noranda and its consolidated subsidiaries set out in this Booklet.

NORTHWOOD MILLS LTD. (100% owned by Noranda)

Northwood Mills is referred to on page 8 of this Booklet. Northwood Mills' accounts are included in the consolidated financial statements of Noranda and its consolidated subsidiaries set out in this Booklet.

QUEBEC IRON FOUNDRIES LTD. (100% owned by Noranda)

Quebec Iron Foundries manufactures grinding balls, mill liners and general castings at plants located in Noranda and Mont Joli, Quebec. A subsidiary, Ocean Foundries Limited, is building a similar plant near Vancouver, British Columbia. The accounts of Quebec Iron Foundries are included in the consolidated financial statements of Noranda and its consolidated subsidiaries set out in this Booklet.

Interests in Certain Other Companies

CRAIGMONT MINES LIMITED (20% owned by Noranda and 46% owned by a wholly-owned subsidiary of Placer Development Limited)

Craigmont owns and operates a copper mine near Merritt, British Columbia. Estimated ore reserves on October 31, 1963 were 24,792,000 tons, grading 1.75% copper. Net profits for its 1963 fiscal year were \$6,585,000 and for the first nine months of its fiscal year ended October 31, 1964 were \$5,301,000. During its 1964 fiscal year Craigmont has declared common share dividends totalling \$5,077,000.

GECO MINES LIMITED

See page 6 of this Booklet.

KERR ADDISON MINES LIMITED (31% owned by Noranda directly and 11% by subsidiaries of Noranda and companies in which Noranda has a substantial investment)

Kerr Addison owns and operates Canada's largest producing gold mine located in the Larder Lake area of Ontario. Estimated ore reserves at January 1, 1964, after allowing for dilution, were 6,045,000 tons averaging 0.4205 ounce gold per ton. Kerr Addison carries on an active exploration programme, both on its own account and in participation with others. Net profits for the nine months ended September 30, 1964 were \$2,734,000. As at October 30, 1964 Kerr Addison held marketable securities with a quoted market value of approximately \$46,000,000. During 1964 Kerr Addison has declared four quarterly dividends totalling \$2,808,000.

MATTAGAMI LAKE MINES LIMITED (26% owned by Noranda directly and 26% by a wholly-owned subsidiary of Placer Development Limited)

Mattagami Lake owns and operates a zinc-copper mine in the Matagami area of Quebec. Estimated proven ore reserves at January 1, 1964 in the No. 1 orebody were 19,377,000 tons, grading 12.0% zinc, 0.72% copper, 0.018 ounce gold per ton and 1.31 ounces silver per ton. Indicated ore reserves at that date in the No. 2 orebody were 2,000,000 tons, grading 12.86% zinc, 0.86% copper, 0.013 ounce gold per ton and 0.99 ounce silver per ton. The mine commenced production in the fall of 1963 and the income derived therefrom is exempt from Canadian income tax until the fall of 1966. Net profits for the nine months ended September 30, 1964 were \$10,200,000. Mattagami Lake has covenanted not to pay any dividends until certain bank and debenture debt totalling \$25,650,000 as at October 30, 1964 is repaid.

NORMETAL MINING CORPORATION, LIMITED (49% owned by Noranda and 1% owned by companies in which Noranda has a substantial investment)

Normetal owns and operates a copper-zinc-silver mine in the Abitibi district of Quebec. Estimated ore reserves at January 1, 1964 were 1,552,000 tons, averaging 2.50% copper and 8.30% zinc before any allowance for dilution. The concentrator has a daily capacity of approximately 1,000 tons. During 1963 Normetal produced 8,618 tons of copper, 14,744 tons of zinc, 483,000 ounces of silver and 6,100 ounces of gold. Net profits in 1963 were \$1,488,000 and for the nine months ended September 30, 1964 were \$1,468,000. Normetal has investments with a quoted market value of approximately \$10,300,000 as at October 30, 1964. During 1964 Normetal has declared four quarterly dividends totalling \$1,127,000.

ORCHAN MINES LIMITED (45% owned by Noranda directly and 14% owned by subsidiaries of Noranda and companies in which Noranda has a substantial investment)

Orchan has a zinc-copper mine in the Matagami area which came into production in the fall of 1963 when the construction of a 1,900 ton daily capacity mill was completed. Income from the mine is exempt from Canadian income tax until the fall of 1966. Proven ore reserves in Nos. 2 and 3 orebodies at January 1, 1964 were 3,140,000 tons grading 11.63% zinc, 1.24% copper, 0.016 ounce gold per ton and 1.41 ounces silver per ton. Indicated ore reserves were originally estimated at 4,600,000 tons and it is expected that further drilling will establish proven ore reserves at that tonnage. Orchan treats about 1,000 tons of ore

daily from its mine, and custom mills the ore from the nearby mine of New Hosco Mines Limited at a rate of about 900 tons daily. Net profits for the nine months ended September 30, 1964 were \$1,735,000. Orchan has covenanted not to pay any dividends until certain bank and debenture debt totalling \$13,410,000 as at October 30, 1964 is repaid.

PAMOUR PORCUPINE MINES, LIMITED (46% owned by Noranda)

Pamour owns and operates a gold mine in the Porcupine area of Ontario. During 1963, 64,870 ounces of gold were recovered from this mine. At January 1, 1964 the estimated ore reserves were 1,630,700 tons, averaging 0.102 ounce gold per ton. Net profits in 1963 were \$695,000 and for the nine months ended September 30, 1964 were \$603,000. Pamour has investments with a quoted market value of approximately \$8,200,000 as at October 30, 1964. During 1964 Pamour has declared two dividends totalling \$600,000.

PLACER DEVELOPMENT LIMITED (26% owned by Noranda)

Directly and through subsidiaries, Placer has extensive mining interests in Canada, Australia, the United States and other parts of the world, including substantial participations in Craigmont Mines Limited, Mattagami Lake Mines Limited and Endako Mines Limited. During the first three quarters of 1964 Placer has paid dividends totalling \$1,958,000 and for the fourth quarter has declared a dividend in redeemable preferred shares equivalent to \$783,000.

QUEMONT MINING CORPORATION, LIMITED (49% owned by Noranda directly and 3% owned by companies in which Noranda has a substantial investment)

Quemont owns and operates a copper-gold-zinc-silver mine in the Rouyn-Noranda district, Quebec, adjoining Noranda's Horne mine. During 1963 the mine produced 9,023 tons of copper, 101,400 ounces of gold, 12,998 tons of zinc, 425,000 ounces of silver and 248,000 tons of pyrite concentrate. Estimated ore reserves at January 1, 1964 were 3,360,000 tons averaging 0.168 ounce gold per ton, 1.00 ounce silver per ton, 1.27% copper, 2.86% zinc and 48% pyrite. Quemont's mill has a capacity of 2,000 tons per day. Net profits in 1963 were \$2,484,000 and for the nine months ended September 30, 1964 were \$1,985,000. Quemont has investments with a quoted market value as at October 30, 1964 of \$15,600,000. During 1964 Quemont has declared four quarterly dividends totalling \$2,102,000.

Assets

CURRENT ASSETS:

Cash.....	\$ 4,291,545	
Marketable investments, at cost less amounts written off (quoted market value \$22,141,067).....	20,952,038	
Accounts, advances and tolls receivable (\$498,268 due from unconsolidated subsidiaries).....	23,051,750	
Inventories of metals and products—metals at estimated realizable value, other inventories at lower of cost or market.....	<u>15,654,213</u>	\$ 63,949,546

DEFERRED AND PREPAID ITEMS:

Stores, at cost.....	\$ 1,729,551	
Mortgage loans on townsite properties.....	481,366	
Miscellaneous.....	<u>1,895,932</u>	4,106,849

FIXED ASSETS:

Mining properties, at cost.....		959,780
Land, buildings and equipment, at cost.....	\$ 86,324,637	
Accumulated depreciation.....	<u>56,022,472</u>	30,302,165

INVESTMENTS at cost, less amounts written off:

Unconsolidated subsidiaries (Note 1).....	\$ 18,907,546	
Associated and other companies (Note 2).....	<u>72,770,126</u>	91,677,672

ADVANCES:

Unconsolidated subsidiaries.....	\$ 179,494	
Other companies.....	<u>147,305</u>	326,799

DEFERRED PREPRODUCTION AND EXPLORATION EXPENDITURES.....

2,482,387
\$193,805,198

To the Shareholders of Noranda Mines, Limited:

We have examined the consolidated balance sheet of Noranda Mines, Limited and its consolidated subsidiaries as at December 31, 1963 and the consolidated statements of operations and earned surplus for the year ended on that date. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

S, LIMITED

Subsidiaries

Balance Sheet

1963

Liabilities

CURRENT LIABILITIES:

Accounts payable (\$2,885,120 due to unconsolidated subsidiaries)	\$ 23,162,812	
Taxes payable	5,788,123	
Current portion of long-term debt	<u>448,000</u>	\$ 29,398,935

TAXES ON INCOME DEFERRED TO FUTURE PERIODS 2,569,614

SINKING FUND DEBENTURES 4¾% maturing January 2, 1968 redeemable at \$100.75 to January 2, 1965 and at reducing amounts thereafter to maturity	\$ 9,323,000	
Less sinking fund payment due July 2, 1964	<u>448,000</u>	8,875,000

MINORITY INTERESTS in consolidated subsidiaries 290,037

CAPITAL STOCK AND SURPLUS:

Capital stock (Note 4)—

Authorized: 12,000,000 shares of no par value

Issued: 9,962,606 shares (9,281,606 in 1962) \$ 44,000,517

Earned surplus 108,671,095 152,671,612

On behalf of the Board:

JOHN R. BRADFELD, Director.

R. V. PORRITT, Director.

\$193,805,198

port

In our opinion the accompanying consolidated balance sheet and consolidated statements of operations and earned surplus present fairly the financial position of the companies as at December 31, 1963 and the results of their operations for the year ended on that date, in accordance with generally accepted accounting principles applied on a basis consistent with that of the previous year.

Toronto, Canada,
February 21, 1964.

CLARKSON, GORDON & Co.,
Chartered Accountants.

NORANDA MINES, LIMITED
and its Consolidated Subsidiaries

Consolidated Statement of Operations
For the Year ended December 31, 1963

REVENUE:

From metals, products and custom tolls.....	\$ 85,826,271	
Dividends and interest earned (including \$5,005,022 dividends and \$18,915 interest, from unconsolidated subsidiaries) (Note 1).....	9,658,776	
Profit on sale of investments.....	<u>1,242,304</u>	\$ 96,727,351

EXPENSE:

Cost of metal production and products sold.....	\$ 53,952,679	
Depreciation.....	4,950,589	
Preproduction expenditures written off.....	1,195,076	
Administration, research, selling and general expenses.....	3,257,107	
Municipal and sundry taxes.....	1,057,296	
Interest on long-term debt.....	<u>495,279</u>	64,908,026
		<u>\$ 31,819,325</u>
Provided for income and production taxes.....	\$ 7,731,429	
Outside exploration written off.....	2,201,020	
Amount written off investments.....	1,078,652	
Minority interest in earnings of subsidiaries.....	<u>9,520</u>	11,020,621
Net profit for the year.....		<u><u>\$ 20,798,704</u></u>

Consolidated Earned Surplus

Balance—beginning of year.....	\$ 91,868,478
Portion of special dividend received from Waite Amulet Mines, Limited (Note 1)	11,252,409
Net profit for the year.....	<u>20,798,704</u>
	<u>\$123,919,591</u>
Dividends paid.....	\$ 12,343,590
Excess of cost of investment in Northwood Mills Ltd. (a consolidated subsidiary) over book value of net assets acquired.....	<u>2,904,906</u>
	<u>\$ 15,248,496</u>
Balance—end of year.....	<u><u>\$108,671,095</u></u>

NORANDA MINES, LIMITED
and its Consolidated Subsidiaries

Notes to Consolidated Financial Statements
For the Year ended December 31, 1963

1. (a) The accompanying consolidated financial statements include the accounts of Noranda Mines, Limited and the following operating subsidiaries (including their subsidiaries) whose financial statements are not published:
 - Brynnor Mines Limited,
 - Canadian Copper Refiners Limited,
 - Noranda Copper and Brass Limited,
 - Noranda Copper Mills Ltd.,
 - Noranda Hotel Company Limited,
 - Noranda Sales Corporation Ltd.,
 - Northwood Mills Ltd. (from acquisition in November, 1963),
 - Quebec Iron Foundries Ltd.
- (b) Noranda's share of the aggregate profits less losses of its unconsolidated subsidiaries for their 1963 fiscal periods amounted to \$8,146,702 compared with dividends of \$5,005,022 received from such subsidiaries and included in the consolidated statement of operations for the year. The latter amount does not include a special dividend of \$18,975,000 received from Waite Amulet Mines, Limited (an unconsolidated subsidiary). Of the special dividend, \$7,722,591 represented the profit realized by Waite Amulet on the transfer of certain securities to Noranda and this amount has been applied by Noranda to reduce the book value of such securities.
Noranda's share of the accumulated undistributed profits less losses of its unconsolidated subsidiaries of \$34,260,682 has not been taken up in the consolidated accounts.
- (c) The unconsolidated subsidiaries hold 62,400 shares of Noranda Mines, Limited.
- (d) Directors of Noranda received fees of \$61,500 from that company and \$23,200 in their capacities as Directors of all subsidiary companies.
2. The investments in "Associated and other companies" are not temporary investments and include shares carried at a book value of \$69,342,100 which have a quoted market value of \$135,500,520 at December 31, 1963. The latter amount does not necessarily represent the value of these holdings which may be more or less than that indicated by market quotations.
3. Noranda and its consolidated subsidiaries have undertaken commitments which, if proceeded with, will involve capital expenditures estimated at approximately \$14,000,000.
4. The following transactions affecting share capital occurred during 1963:
 - (a) 664,867 shares were issued for \$24,267,645 under the offer to purchase the assets of The Mining Corporation of Canada, Limited.
 - (b) Under the provisions of the Stock Option Plan which was authorized in 1960, options on 16,133 shares were exercised for a total consideration of \$340,972. At December 31, 1963 options on 37,693 shares were outstanding under this plan.

GECO MINES LIMITED
Balance Sheet
December 31, 1963

Assets

CURRENT

Cash including short term deposits.....	\$ 6,850,293
Bonds and debentures—at cost (quoted market value \$3,625,950).....	3,620,550
Concentrates at smelter, in transit and on hand (estimated net returns under sales contracts) ..	5,994,220
Accounts receivable.....	287,717
Stores and prepaid expenses.....	1,144,378
	<u>17,897,158</u>

FIXED—at cost

Plant, buildings and equipment.....	18,098,019
Less: Accumulated allowance for depreciation.....	6,770,721
	<u>11,327,298</u>
Employee housing.....	4,214,753
Less: Accumulated allowance for depreciation.....	1,385,675
	<u>2,829,078</u>
Power transmission line (subject to refund as power consumed)	436,324
Mining properties.....	218,948
	<u>14,811,648</u>

OTHER

Deferred development (preproduction expenditures, shaft sinking and other capital development) . . .	10,252,872
Less: Written off to date.....	5,915,375
	<u>4,337,497</u>
	<u>\$37,046,303</u>

Liabilities

CURRENT

Accounts payable and accrued payrolls.....	\$ 818,366
Provision for taxes.....	1,633,000
Dividends unclaimed.....	1,692
	<u>2,453,058</u>

DEFERRED

Deferred income taxes applicable to future years (see note).....	<u>2,900,000</u>
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CAPITAL AND SURPLUS

Capital Stock:	
Authorized and issued—3,000,000 shares of par value of \$1.00 each.....	3,000,000
Contributed surplus—net premium on shares.....	8,642,937
Earned surplus—per statement.....	20,050,308
	<u>31,693,245</u>

NOTE: Write-offs claimed for tax purposes have exceeded the write-offs recorded in the company's accounts. Amounts equivalent to the resulting reductions in income taxes currently payable have been charged to earnings and set aside in the balance sheet as deferred income taxes applicable to future years.

Approved on behalf of the Board:

J. A. H. PATERSON, Director.

R. V. PORRITT, Director.

\$37,046,303

Auditors' Report

To the Shareholders of Geco Mines Limited:

We have examined the balance sheet of Geco Mines Limited as at December 31, 1963, and the statement of operations and earned surplus account for the year ended on that date. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

In our opinion, the accompanying balance sheet and statement of operations and earned surplus account present fairly the financial position of the company as at December 31, 1963 and the results of its operations for the year ended on that date, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Toronto, Canada, February 10, 1964.

SIME, AYERS & Co.,
Chartered Accountants.

GECO MINES LIMITED

Statement of Operations and Earned Surplus Account

For the Year ended December 31, 1963

REVENUE:

Gross value of production including miscellaneous revenue at the mine.....	\$32,513,019
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EXPENDITURES:

Cost of operations.....	20,427,696
(including mining and milling costs, treatment and delivery charges, administrative and general expenses and \$7,500 directors' fees)	12,085,323

Interest earned.....	328,212
	12,413,535

PROVISION FOR TAXES:

Federal and provincial income taxes.....	1,729,000
Deferred income taxes.....	900,000
	2,629,000
Ontario mining tax.....	808,818
	3,437,818

Depreciation on plant, buildings and equipment and employee dwellings.....	1,649,543
Deferred development write-off.....	1,545,583
	3,195,126

Net profit for the year.....	5,780,591
Earned surplus as at December 31, 1962.....	17,999,467
Add: Profit on sale of bonds.....	20,250
	23,800,308

DEDUCT:

Interim dividends paid:

No. 11—Mar. 29, 1963 @ 25¢ per share.....	\$ 750,000	
No. 12—June 27, 1963 @ 25¢ per share.....	750,000	
No. 13—Sept. 30, 1963 @ 25¢ per share.....	750,000	
No. 14—Dec. 30, 1963 @ 50¢ per share.....	1,500,000	3,750,000

Earned surplus as at December 31, 1963.....	\$20,050,308
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NORANDA MINES, LIMITED
and its Consolidated Subsidiaries

Unaudited Consolidated Statement of Operations and Earned Surplus
For the Five Years and Nine Months ended September 30, 1964

	9 Months to September 30, 1964	1963	1962	1961	1960	1959
Revenue:						
From production and custom tolls.....	\$ 80,247,350	\$ 85,826,271	\$87,020,304	\$76,130,036	\$80,122,207	\$82,886,005
Dividends and interest earned.....	9,022,761	9,658,776	6,563,829	5,274,031	5,928,124	5,624,066
Profit on sale of investments.....	578,400	1,242,304	568,585	773,487	628,644	14,320
	<u>\$ 89,848,511</u>	<u>\$ 96,727,351</u>	<u>\$94,152,718</u>	<u>\$82,177,554</u>	<u>\$86,678,975</u>	<u>\$88,524,391</u>
Expense:						
Cost of production, administration, selling and general expense.....	\$ 56,270,369	\$ 58,267,082	\$57,908,408	\$51,232,291	\$55,428,533	\$58,182,652
Preproduction expenditures written off...	773,470	1,195,076	697,045	—	—	—
Depreciation.....	5,098,567	4,950,589	6,639,749	6,034,116	7,445,325	9,884,075
Interest on long term debt.....	307,434	495,279	744,078	856,956	1,471,309	1,734,596
	<u>\$ 62,449,840</u>	<u>\$ 64,908,026</u>	<u>\$65,989,280</u>	<u>\$58,123,363</u>	<u>\$64,345,167</u>	<u>\$69,801,323</u>
	<u>\$ 27,398,671</u>	<u>\$ 31,819,325</u>	<u>\$28,163,438</u>	<u>\$24,054,191</u>	<u>\$22,333,808</u>	<u>\$18,723,068</u>
Provided for income and production taxes....	\$ 6,283,322	\$ 7,731,429	\$ 9,183,990	\$ 8,699,693	\$ 7,568,202	\$ 5,874,374
Outside exploration written off.....	1,985,264	2,201,020	1,769,982	815,675	1,130,830	625,000
Amount written off investments.....	—	1,078,652	—	184,874	787,067	—
Minority interest in earnings of a subsidiary..	9,549	9,520	4,635	4,635	4,635	4,635
	<u>\$ 8,278,135</u>	<u>\$ 11,020,621</u>	<u>\$10,958,607</u>	<u>\$ 9,704,877</u>	<u>\$ 9,490,734</u>	<u>\$ 6,504,009</u>
Net profit for the period.....	\$ 19,120,536	\$ 20,798,704	\$17,204,831	\$14,349,314	\$12,843,074	\$12,219,059
Earned surplus—beginning of period.....	108,671,095	91,868,478	82,144,485	77,207,706	73,259,573	71,348,788
Adjustments.....	2,229,463	8,347,503	2,946,432	—	64,322	(1,349,186)
	(Note 2)	(Note 3)	(Note 4)			(Note 5)
Dividends paid.....	(9,968,461)	(12,343,590)	(10,427,270)	(9,412,535)	(8,959,263)	(8,959,088)
Earned surplus—end of period.....	<u>\$120,052,633</u>	<u>\$108,671,095</u>	<u>\$91,868,478</u>	<u>\$82,144,485</u>	<u>\$77,207,706</u>	<u>\$73,259,573</u>

NOTES:

1. Noranda's share of the aggregate profits less losses of its unconsolidated subsidiaries for the nine months ended September 30, 1964 amounted to \$5,206,587 as compared with dividends of \$3,265,861 received from such subsidiaries and included in the consolidated statement of operations for that period.
2. Recovery of portion of excess cost of investment in Northwood Mills Ltd. previously written off, as a result of the sale of two of its subsidiaries.
3. A special dividend was received from Waite Amulet Mines, Limited (an unconsolidated subsidiary), of which \$11,252,409 was credited to earned surplus. Excess of cost of investment in Northwood Mills Ltd. (a consolidated subsidiary) over book value of net assets acquired of \$2,904,906 was charged to earned surplus.
4. The valuation of metal inventories was changed on January 1, 1962 from the former basis of—copper 10¢ per lb., silver 45¢ per oz., gold \$35 per oz.,—to estimated realizable value; the result of this change was to increase earned surplus by \$1,950,073. One of the consolidated subsidiaries retroactively changed its method of providing depreciation as of January 1, 1962 from the diminishing balance to the straight line method. This change had no material effect on the net profit of the 1962 year, but resulted in a net increase in the earned surplus of \$996,359.
5. The Port Robinson plant was written down to its estimated realizable value, which write down resulted in a decrease of earned surplus of \$1,351,559.

GECO MINES LIMITED

Unaudited Statement of Operations and Earned Surplus Account For the Five Years and Nine Months ended September 30, 1964

	9 Months to September 30, 1964	1963	1962	1961	1960	1959
Revenue:						
Gross value of production including miscellaneous revenue at the mine.....	\$29,234,896	\$32,513,019	\$28,767,541	\$21,375,073	\$21,079,466	\$21,921,823
Expenditures:						
Cost of operations.....	17,412,178	20,427,696	18,875,224	15,598,231	13,330,920	13,072,681
	\$11,822,718	\$12,085,323	\$ 9,892,317	\$ 5,776,842	\$ 7,748,546	\$ 8,849,142
Interest earned (net).....	306,815	328,212	158,823	80,277	(33,324)	(363,327)
	\$12,129,533	\$12,413,535	\$10,051,140	\$ 5,857,119	\$ 7,715,222	\$ 8,485,815
Federal and provincial income taxes (See note)	\$ 3,100,863	\$ 2,629,000	\$ 2,000,000	\$ —	\$ —	\$ —
Ontario mining tax.....	976,071	808,818	627,622	114,013	377,195	491,789
	\$ 4,076,934	\$ 3,437,818	\$ 2,627,622	\$ 114,013	\$ 377,195	\$ 491,789
	\$ 8,052,599	\$ 8,975,717	\$ 7,423,518	\$ 5,743,106	\$ 7,338,027	\$ 7,994,026
Depreciation on plant, buildings and equipment and employee dwellings.....	\$ 1,335,000	\$ 1,649,543	\$ 1,458,451	\$ 1,322,277	\$ 1,263,084	\$ 1,226,010
Deferred development write-off.....	1,158,000	1,545,583	1,545,583	772,792	686,382	621,992
	\$ 2,493,000	\$ 3,195,126	\$ 3,004,034	\$ 2,095,069	\$ 1,949,466	\$ 1,848,002
Net profit for the year.....	\$ 5,559,599	\$ 5,780,591	\$ 4,419,484	\$ 3,648,037	\$ 5,388,561	\$ 6,146,024
Earned surplus — beginning of period	20,050,308	17,999,467	16,576,233	15,928,196	12,039,635	5,893,611
Profit on sale of bonds.....	7,750	20,250	3,750	—	—	—
	\$25,617,657	\$23,800,308	\$20,999,467	\$19,576,233	\$17,428,196	\$12,039,635
Dividends.....	2,700,000	3,750,000	3,000,000	3,000,000	1,500,000	—
Earned surplus — end of period	\$22,917,657	\$20,050,308	\$17,999,467	\$16,576,233	\$15,928,196	\$12,039,635

NOTE:

Geco's tax exempt period expired September 30, 1960. No income taxes were payable for the balance of 1960 and the years 1961 and 1962 by virtue of write-offs allowable. Since write-offs claimed to defer payment of income taxes will not be available against future income, amounts equivalent to taxes so deferred (\$2,000,000 in 1962, \$900,000 in 1963 and \$53,000 in 1964) were charged to earnings and set aside as "Deferred income taxes applicable to future years" on the balance sheet.

**Unaudited Pro Forma
including the Balance Sheet
the Consolidated Balance Sheet
and its Consolidated Subsidiaries**

Assets			
	<u>Geco</u>	<u>Noranda</u>	<u>Amalgamated Company</u>
CURRENT ASSETS:			
Cash, including short term deposits (Note 2).....	\$ 5,978,556	\$ 220,003	\$ 6,234,190
Marketable investments, at cost less amounts written off (quoted market value, \$37,867,010).....	8,332,475	28,725,223	37,057,698
Accounts, advances and tolls receivable (including \$1,036,871 due from unconsolidated subsidiaries)...	387,593	32,392,338	32,779,931
Inventories of metals and products—metals at estimated realizable value, other inventories at the lower of cost or market.....	7,576,668	16,280,480	23,857,148
	<u>\$ 22,275,292</u>	<u>\$ 77,618,044</u>	<u>\$ 99,928,967</u>
DEFERRED AND PREPAID ITEMS:			
Stores, at cost.....	\$ 1,442,895	\$ 1,715,897	\$ 3,158,792
Mortgage loans on townsite properties.....	—	571,724	571,724
Miscellaneous.....	359,039	1,511,368	1,870,407
	<u>\$ 1,801,934</u>	<u>\$ 3,798,989</u>	<u>\$ 5,600,923</u>
FIXED ASSETS:			
Mining properties, at cost.....	\$ 219,257	\$ 1,150,273	\$ 1,369,530
Potash permits, at cost.....	—	—	7,275,000
	<u>\$ 219,257</u>	<u>\$ 1,150,273</u>	<u>\$ 8,644,530</u>
Land, buildings and equipment, at cost.....	\$ 23,771,882	\$ 88,482,975	\$112,254,857
Accumulated depreciation.....	9,461,862	59,389,236	68,851,098
	<u>\$ 14,310,020</u>	<u>\$ 29,093,739</u>	<u>\$ 43,403,759</u>
INVESTMENTS, at cost less amounts written off:			
Unconsolidated subsidiaries (Note 1).....	\$ —	\$ 18,875,868	\$ 18,875,868
Associated and other companies (Notes 3 and 4).....	81,180	76,333,636	57,276,371
	<u>\$ 81,180</u>	<u>\$ 95,209,504</u>	<u>\$ 76,152,239</u>
ADVANCES:			
Unconsolidated subsidiaries.....	\$ —	\$ 149,863	\$ 149,863
Other companies.....	—	3,400,018	3,400,018
	<u>\$ —</u>	<u>\$ 3,549,881</u>	<u>\$ 3,549,881</u>
DEFERRED PREPRODUCTION AND EXPLORATION EXPENDITURES			
	<u>\$ 3,179,497</u>	<u>\$ 3,370,898</u>	<u>\$ 6,550,395</u>
	<u>\$ 41,867,180</u>	<u>\$213,791,328</u>	<u>\$243,830,694</u>

S LIMITED

(Company)

**dated Balance Sheet
co Mines Limited (Geco) and
randa Mines, Limited (Noranda)
all as at September 30, 1964**

Liabilities

	<u>Geco</u>	<u>Noranda</u>	<u>Amalgamated Company</u>
CURRENT LIABILITIES:			
Accounts payable (\$1,926,640 due to unconsolidated subsidiaries) (Note 2).....	\$ 1,020,186	\$ 34,108,636	\$ 37,832,999
Taxes payable.....	3,333,400	4,709,171	8,042,571
	<u>\$ 4,353,586</u>	<u>\$ 38,817,807</u>	<u>\$ 45,875,570</u>
 TAXES ON INCOME DEFERRED TO FUTURE PERIODS.....	 <u>\$ 2,953,000</u>	 <u>\$ 3,261,711</u>	 <u>\$ 6,214,711</u>
 SINKING FUND DEBENTURES 4¾% maturing January 2, 1968 redeemable at \$100.75 to January 2, 1965 and at reducing amounts thereafter to maturity.....	 <u>\$ —</u>	 <u>\$ 7,110,000</u>	 <u>\$ 7,110,000</u>
 MINORITY INTEREST in consolidated subsidiaries.....	 <u>\$ —</u>	 <u>\$ 299,586</u>	 <u>\$ 299,586</u>
 CAPITAL STOCK AND SURPLUS:			
Capital stock (Note 3):			
	<u>Authorized</u>	<u>Issued</u>	
Pro forma—no par value.....	15,000,000	11,657,060	\$ 53,310,798
Geco—\$1.00 par value.....	3,000,000	3,000,000	\$ 3,000,000
Noranda—no par value.....	12,000,000	9,973,831	\$ 44,249,591
Contributed Surplus (Note 3).....		8,642,937	5,043,373
Earned Surplus (Note 3).....		22,917,657	125,976,656
	<u>\$ 34,560,594</u>	<u>\$164,302,224</u>	<u>\$184,330,827</u>

See page 22 for notes to pro forma balance sheet.

\$ 41,867,180 \$213,791,328 \$243,830,694

NORANDA MINES LIMITED
(the Amalgamated Company)
Notes to Unaudited Pro Forma Consolidated Balance Sheet
as at September 30, 1964

1. (a) The accompanying pro forma consolidated balance sheet includes the accounts of the Amalgamated Company and the following operating subsidiaries (including their subsidiaries) whose financial statements are not published:
 Brynnor Mines Limited,
 Canadian Copper Refiners Limited,
 Noranda Copper and Brass Limited,
 Noranda Copper Mills Ltd.,
 Noranda Hotel Company Limited,
 Noranda Sales Corporation Ltd.,
 Northwood Mills Ltd.,
 Quebec Iron Foundries Ltd.
- (b) Noranda's share of the aggregate profits less losses of its unconsolidated subsidiaries for the nine months ended September 30, 1964 amounted to \$5,206,587, compared with dividends of \$3,265,861 received from such subsidiaries and included in the consolidated statement of operations for the nine months.
 Noranda's share of the accumulated undistributed profits less losses of its unconsolidated subsidiaries of \$36,201,408 has not been taken up in the consolidated accounts.
- (c) The unconsolidated subsidiaries hold 62,400 shares of Noranda.
2. The pro forma balance sheet gives effect as at September 30, 1964 to:
 - (a) The purchase in November, 1964 of potash permits in Saskatchewan from Consolidated Morrison Explorations, Limited for 150,000 fully paid shares of Noranda issued for an aggregate consideration of \$7,275,000.
 - (b) The purchase since September 30, 1964 by Noranda from subsidiaries of an additional 61,461 shares of Geco at a cost of \$2,704,177.
 - (c) The issue of 1,475 shares under the Noranda Stock Option Plan during the period October 1 to November 11, 1964 for \$35,631 cash.
 - (d) The statutory amalgamation of Noranda and Geco under the name Noranda Mines Limited, which provides for share conversions, after cancelling shares of Geco held by Noranda (1,249,424 as at November 11, 1964) on the following basis:
 - (i) One share of Noranda into one share of the Amalgamated Company,
 - (ii) Eight shares of Geco into seven shares of the Amalgamated Company.
3. The effect of the transactions in Note 2 on the capital and surplus of the Amalgamated Company is as follows:

	Issued Capital	Contributed Surplus	Earned Surplus
(a) Balances per consolidated balance sheet of Noranda as at September 30, 1964.....	\$44,249,591	—	\$120,052,633
Issue of 150,000 shares at \$48.50 per share for potash permits.....	7,275,000	—	—
Issue of 1,475 shares under the Noranda Stock Option Plan during the period October 1 to November 11, 1964.....	35,631	—	—
	<u>\$51,560,222</u>		<u>\$120,052,633</u>
Balances per balance sheet of Geco as at September 30, 1964.....	3,000,000	\$8,642,937	22,917,657
	<u>\$54,560,222</u>	<u>\$8,642,937</u>	<u>\$142,970,290</u>
Cancellation of 1,249,424 shares of Geco held by Noranda.....	1,249,424	3,599,564	16,993,634
	<u>\$53,310,798</u>	<u>\$5,043,373</u>	<u>\$125,976,656</u>
	Noranda	Geco	Amalgamated Company
(b) Number of shares issued and outstanding as at September 30, 1964.....	9,973,831	3,000,000	
Shares issued to acquire potash permits.....	150,000	—	
Shares issued under the Noranda Stock Option Plan during the period October 1 to November 11, 1964.....	1,475	—	
Shares of Geco held by Noranda cancelled on amalgamation.....	—	(1,249,424)	
Shares converted.....	<u>10,125,306</u>	<u>1,750,576</u>	
At the rate of.....	1 : 1 new	8 : 7 new	
Issued and outstanding shares of the Amalgamated Company.....	<u>10,125,306</u>	<u>1,531,754</u>	<u>11,657,060</u>

4. The investments in "Associated and other companies" are not temporary investments and include shares carried at a book value of \$50,169,400 which have a quoted market value of \$127,157,000 at September 30, 1964. The latter amount does not necessarily represent the value of these holdings which may be more or less than that indicated by market quotations.
5. Under the provisions of the Noranda Stock Option Plan, which was authorized in 1960, in the period January 1 to November 11, 1964 options on 12,700 shares were exercised for a total consideration of \$284,705. At November 11, 1964 options on 32,993 shares were outstanding under this plan.
6. On November 5, 1964 Noranda announced its intention of making offers to purchase the Class 'A' and Class 'B' shares of Canada Wire and Cable Company, Limited not already held by Noranda on the basis of four Noranda shares plus \$5 for each one Class 'A' share and for each ten Class 'B' shares of Canada Wire. If all the Canada Wire shares affected by the offers are acquired, an additional 164,798 shares of the Amalgamated Company will be issued therefor.
7. Noranda and its consolidated subsidiaries and Geco have undertaken commitments which, if proceeded with, will involve capital expenditures estimated at approximately \$22,500,000.
 November 11, 1964.

EXHIBIT A

Amalgamation Agreement

THIS AGREEMENT made as of the 13th day of November, 1964,
BETWEEN :

NORANDA MINES, LIMITED
(hereinafter called "Noranda")

OF THE FIRST PART,

—and—

GECO MINES LIMITED
(hereinafter called "Geco")

OF THE SECOND PART,

WHEREAS Noranda and Geco were incorporated by letters patent under the laws of the Province of Ontario and have the same or similar objects;

AND WHEREAS the authorized capital of Noranda consists of 12,000,000 shares without par value of which 10,125,306 shares are issued and outstanding as fully paid and non-assessable, and 32,993 shares are under option to certain employees of Noranda;

AND WHEREAS the authorized capital of Geco consists of \$3,000,000 divided into 3,000,000 shares with a par value of \$1 each, all of which are issued and outstanding as fully paid and non-assessable;

AND WHEREAS Noranda and Geco, under the authority of The Corporations Act, propose to amalgamate upon and subject to the terms and conditions herein prescribed and to continue as one company;

AND WHEREAS each of Noranda and Geco has made disclosure to the other as to its assets and liabilities;

NOW THEREFORE THIS AGREEMENT WITNESSETH as follows:

1. In this Agreement, the expressions (a) "Amalgamated Company" shall mean the company continuing by virtue of the amalgamation of Noranda and Geco, and (b) "the letters patent" shall mean the letters patent confirming this Agreement and amalgamating Noranda and Geco.
2. Noranda and Geco hereby agree to amalgamate pursuant to the provisions of Section 96 of The Corporations Act and to continue as one company under the terms and conditions herein prescribed.
3. The name of the Amalgamated Company shall be Noranda Mines Limited or any variation thereof acceptable to the Lieutenant-Governor of the Province of Ontario.
4. The objects of the Amalgamated Company shall be as follows:—
 - (a) To carry on in all its branches the business of mining, milling, reduction and development;
 - (b) To acquire, own, lease, prospect for, open, explore, develop, work, improve, maintain and manage mines and mineral lands and deposits, including oil and gas lands and deposits, and to dig for, raise, crush, wash, smelt, assay, analyse, reduce, amalgamate, refine, pipe, convey and otherwise treat ores, metals and minerals, including oil and gas, whether belonging to the Amalgamated Company or not, and to render the same merchantable and to sell or otherwise dispose of the same or any part thereof or interest therein; and
 - (c) To take, acquire and hold as consideration for ores, metals or minerals, including oil and gas, sold or otherwise disposed of or for goods supplied or for work done by contract or otherwise, shares, debentures or other securities of or in any other company having objects similar, in whole or in part, to those of the Amalgamated Company, and to sell and otherwise dispose of the same.

And the following provisions shall apply to the Amalgamated Company:

- (i) That it shall not be necessary for a majority of the board of directors of the Amalgamated Company to constitute a quorum, but the quorum shall be two-fifths (2/5) of the board of directors;
- (ii) That meetings of the board of directors and the executive committee (if any) of the Amalgamated Company may be held at any place within or outside of Ontario and meetings of the shareholders of the Amalgamated Company may be held at any place within Ontario;

- (iii) That the Amalgamated Company may pay commissions to persons in consideration of their subscribing or agreeing to subscribe, whether absolutely or conditionally, for shares in the Amalgamated Company, or procuring or agreeing to procure subscriptions whether absolute or conditional for such shares but no such commission shall exceed twenty-five per cent (25%) of the amount of the subscription;
- (iv) That the directors of the Amalgamated Company may from time to time:—
- borrow money on the credit of the Amalgamated Company;
 - issue, sell or pledge securities of the Amalgamated Company;
 - charge, mortgage, hypothecate or pledge all or any of the real and personal property of the Amalgamated Company both present and future, including book debts and unpaid calls, rights, powers, franchises and undertaking, to secure any securities or any money borrowed, or other debt, or any other obligation or liability of the Amalgamated Company.
5. The authorized capital of the Amalgamated Company shall consist of 15,000,000 shares without par value, provided that the 15,000,000 shares shall not be issued for a consideration exceeding in amount or value the sum of One Hundred Million Dollars (\$100,000,000) or such greater amount as the board of directors of the Amalgamated Company deems expedient on payment to the Treasurer of Ontario of the fees payable on such greater amount and on the issuance by the Provincial Secretary of a certificate of such payment.
6. The 1,249,424 shares of Geco which are recorded on the books of Geco in the name of Noranda shall be cancelled.
7. The shares of Noranda and Geco respectively which are issued and outstanding, after giving effect to the cancellation of shares referred to in Clause 6 hereof, immediately prior to the date of the letters patent shall on and after such date be converted into issued and outstanding and fully paid shares of the Amalgamated Company on the following basis:—
- one share without par value of the Amalgamated Company for each one share without par value of Noranda; and
 - seven shares without par value of the Amalgamated Company for each eight shares of Geco with a par value of \$1 each.
- After the issue of the letters patent, the shareholders of Noranda and Geco, as and when requested by the Amalgamated Company so to do, shall surrender for cancellation the certificates representing shares held by them in Noranda and Geco respectively and in exchange shall be entitled to receive certificates for shares without par value of the Amalgamated Company on the basis aforesaid.
8. The head office of the Amalgamated Company shall be situate in the Municipality of Metropolitan Toronto, in the County of York, in the Province of Ontario.
9. The by-laws of the Amalgamated Company, which include By-law number 29 of Noranda, which will be designated By-law number 7 of the Amalgamated Company, shall be those set out in Schedule X hereto, until repealed, amended, altered or added to by by-law.
10. The board of directors of the Amalgamated Company, until otherwise determined by special resolution, shall consist of twelve members and the first directors of the Amalgamated Company with their names, callings and places of residence shall be as follows:

<i>Name</i>	<i>Calling</i>	<i>Residence</i>
JOHN ROSS BRADFIELD.....	Mining Executive.....	222 Forest Hill Road, Toronto 7, Ontario.
FREDERICK MARTIN CONNELL.....	Mining Executive.....	53 Russell Hill Road, Toronto 5, Ontario.
ALPHONSE OLIVIER DUFRESNE.....	Executive.....	1075 Bougainville Avenue, Quebec 6, Quebec.
HON. GEORGE BUCHANAN FOSTER.....	Queen's Counsel.....	116 Aberdeen Street, Montreal 6, Quebec.
LEONARD GEORGE LUMBERS.....	Executive.....	37 Old Forest Hill Road, Toronto 7, Ontario.
RICHARD VALENTINE PORRITT.....	Mining Executive.....	25 Dunloe Road, Toronto 7, Ontario.

<i>Name</i>	<i>Calling</i>	<i>Residence</i>
HON. JEAN RAYMOND.....	Executive.....	1818 Richelieu Street, Fort Chambly, Quebec.
WILLIAM STANLEY ROW.....	Mining Executive.....	168 Forest Hill Road, Toronto 7, Ontario.
JOHN DRYSDALE SIMPSON.....	Mining Executive.....	2575 Pt. Grey Road, Vancouver 9, British Columbia.
JULES ROBERT TIMMINS.....	Mining Executive.....	14 Sunnyside Avenue, Westmount, Montreal, Quebec.
LEO HENRY TIMMINS.....	Mining Executive.....	1321 Sherbrooke St. W., Montreal, Quebec.
NORMAN CURRIE URQUHART.....	Mining Executive.....	18 Thornwood Road, Toronto 5, Ontario.

The said first directors shall hold office until the first annual meeting of the Amalgamated Company or until their successors are elected or appointed. The subsequent directors shall be elected or appointed in accordance with the provisions of The Corporations Act. The management and working of the Amalgamated Company shall be under the control of the board of directors, subject to the provisions of The Corporations Act.

11. Noranda shall contribute to the Amalgamated Company all its assets, subject to all its liabilities, as such assets and liabilities exist on the date of the letters patent.

12. Geco shall contribute to the Amalgamated Company all its assets, subject to all its liabilities, as such assets and liabilities exist on the date of the letters patent.

13. The Amalgamated Company shall possess all the property, rights, privileges and franchises and shall be subject to all the liabilities, contracts, disabilities and debts of each of Noranda and Geco.

14. The rights of creditors against the property, rights and assets of Noranda and Geco and all liens upon their property, rights and assets shall be unimpaired by such amalgamation, and all debts, contracts, liabilities and duties of Noranda and Geco shall thenceforth attach to the Amalgamated Company and may be enforced against it.

15. No action or proceeding by or against Noranda or Geco shall abate or be affected by the amalgamation.

16. Upon the shareholders of Noranda and Geco respectively approving the execution of and adopting this Agreement, the fact of such approval and adoption shall be certified upon this Agreement by the Secretary of Noranda and of Geco under their respective corporate seals and Noranda and Geco shall jointly on or before the 31st day of December, 1964, apply to the Lieutenant-Governor of the Province of Ontario for letters patent confirming this Agreement and amalgamating Noranda and Geco.

17. Noranda and Geco may by resolution of their respective directors assent to any alteration or modification of this Agreement which their respective shareholders at meetings called to approve the execution of and to adopt this Agreement, or the Provincial Secretary of Ontario, may approve, and unless the context otherwise requires the expression "this Agreement" as used herein shall be deemed to mean and include this Agreement as so altered or modified.

IN WITNESS WHEREOF the parties hereto have duly executed this Agreement as of the day and year first above written.

NORANDA MINES, LIMITED

By R. V. PORRITT

President

CORPORATE SEAL

And C. H. WINDELER

Secretary

GECO MINES LIMITED

By J. A. H. PATERSON

President

CORPORATE SEAL

And W. HARRISON

Secretary

SCHEDULE X
to the Amalgamation Agreement

NORANDA MINES LIMITED

BY-LAW NUMBER 1

A By-law relating generally to the transaction of the business and affairs of NORANDA MINES LIMITED.

Interpretation

1. In this by-law and all other by-laws of the Company unless the context otherwise requires, words importing the singular number only shall include the plural and vice versa; words importing the masculine gender shall include the feminine gender and neuter gender; words importing persons shall include companies, corporations, partnerships and any number or aggregate of persons; "the Company" shall mean Noranda Mines Limited; "Board" shall mean the Board of Directors of the Company; "letters patent" shall include supplementary letters patent; "The Corporations Act" shall mean The Corporations Act, R.S.O. 1960, Chapter 71, as amended from time to time or any Act that may hereafter be substituted therefor; and "The Interpretation Act" shall mean The Interpretation Act, R.S.O. 1960, Chapter 191 as amended from time to time or any Act that may hereafter be substituted therefor.

Offices

2. (a) **HEAD OFFICE**—The head office of the Company shall be in the Municipality of Metropolitan Toronto, in the County of York, in the Province of Ontario, and at such place therein as the Board may from time to time decide.
- (b) **OTHER OFFICES**—Offices other than the head office may be maintained at such other places within or without the Province of Ontario as the Board may determine.

Seal

3. The seal of the Company shall be in the form impressed hereon.

Officers

4. **ELECTION OF PRESIDENT**—The Board shall elect from among its members a president. Unless otherwise ordered by the Board or by a court of competent jurisdiction, the last incumbent, if a member of the Board, shall continue to hold office until his successor is elected. A vacancy occurring from time to time in such office shall be filled forthwith by the Board from among its members.
5. **APPOINTMENT OF OTHER OFFICERS**—The Board shall appoint a secretary and may appoint one or more vice-presidents, a manager or general manager, a treasurer and such other officers as it may deem desirable including one or more assistants to any of the officers so appointed. The officers so appointed may but need not be members of the Board.
6. **TERM OF OFFICE, DUTIES, REMUNERATION, ETC.**—The term of employment, duties and remuneration of the officers and the security, if any, to be given by them to the Company shall be settled and determined from time to time by the Board, but in the absence of an agreement to the contrary, the employment of all officers shall be during the pleasure of the Board. One person may hold more than one office at one time. If more than one vice-president be appointed, the Board shall determine their respective seniorities. Any officer, employee or agent of the Company may be required to give such bond for the faithful performance of his duties as the Board, in its uncontrolled discretion may require, but no director shall be liable for failure to require any bond or for the insufficiency of any bond or for any loss by reason of the failure of the Company to receive any indemnity thereby provided.
7. **PRESIDENT**—Subject to the provisions relating to the duties of the president and the chairman of the Board, respectively, contained in any by-law or in any special resolution providing for the election of a chairman of the Board, the president when present shall preside at all meetings of the shareholders and of the Board and shall be fully empowered and authorized to exercise the general supervision of the business and affairs of the Company, subject only to the direction of the Board, and he shall have such other powers and duties as the Board may, from time to time, determine. The president, with the secretary or an assistant secretary or such other officer as the Board may appoint, shall sign all by-laws. Except when the Board has appointed a manager or a general manager, the president shall also have the powers and be charged with the duties of that office.

8. VICE-PRESIDENT OR VICE-PRESIDENTS—During the absence or inability to act of the president, his powers and duties shall devolve upon the vice-president, provided he is a director, and if there be more than one in that category, such powers and duties shall devolve upon the executive vice-president if one be appointed, and if there be none or if he be not available, such powers and duties shall devolve upon the vice-president appointed for that purpose by the Board. Every act done by such a vice-president in purported exercise of the powers and duties of the president, which if done by the president would bind the Company, shall bind the Company when so done by such vice-president, whose authority in such case shall not be impugned, and the absence or inability of the president with reference thereto shall be presumed. The vice-president or vice-presidents, shall also perform such duties and exercise such powers as the Board may prescribe.

9. MANAGER OR GENERAL MANAGER—The manager of the Company (herein referred to as the “manager”), or the general manager if one be appointed, shall have the active management and general supervision of the business and affairs of the Company and shall have all the general duties and powers usually vested in the manager of a corporation subject to the authority of the Board and the supervision of the president. On the direction of the Board or the president, he shall see that orders and resolutions of the Board are carried into effect. Employees of the Company shall be under his superintendence and direction and he shall see that their duties are properly performed. The Board shall have power, however, at any time and from time to time to divide the duties herein cast upon the manager or general manager with any other officer or officers of the Company and to define the specific duties to be performed by the manager or general manager and all other officers.

10. SECRETARY—The secretary shall:—

- (a) attend at and keep the minutes of the meetings of the shareholders and of the Board in books provided for that purpose;
- (b) see that notices of such meetings are duly given in accordance with the provisions of the by-laws of the Company or as required by law; and
- (c) perform all duties incident to the office of secretary and such other duties as may be from time to time assigned to him by the Board or the president.

11. TREASURER—The treasurer shall, subject to the direction of the Board and the president, have general charge of the finances of the Company. He shall perform all duties incident to the office of treasurer and such other duties as from time to time may be assigned to him by the Board or the president. He shall cause books to be kept in which shall be entered the receipts and disbursements and assets and liabilities of the Company and shall, subject to the direction of the Board and the president, have charge and custody of and be responsible for all funds and securities and cause to be deposited all such funds and securities in the name of the Company in such depository or depositories as may be selected from time to time by the Board.

12. OTHER OFFICERS—The duties of all other officers of the Company shall be such as the terms of their engagement call for or as the Board shall determine save those of chairman of the Board, whose powers and duties shall be set out in any by-law or in any special resolution passed providing for his election.

13. VARIATION AND DELEGATION OF DUTIES—From time to time the Board may vary, add to or limit the powers and duties of any officer or officers. In case of the absence or inability to act of any officer of the Company (including the president or any vice-president or any other officer), the Board may, subject to the provisions of the by-laws of the Company, empower another officer or any director to exercise temporarily the powers and carry out the duties of the officer absent or unable to act.

14. AGENTS AND ATTORNEYS—The Board shall have power from time to time to appoint agents or attorneys for the Company in or out of Ontario with such powers of management or otherwise (including the power to sub-delegate) as may be thought fit.

Contracts, Banking Arrangements, etc.

15. CONTRACTS—Contracts and engagements on behalf of the Company may be made and bills of exchange and promissory notes on behalf of the Company may be made, drawn, accepted and endorsed and deeds, transfers, mortgages, charges, hypothecs, leases, assignments and all other documents may be executed on behalf of the Company by the chairman of the Board or the president or a vice-president who is also a director and the secretary or the treasurer or by any one of the aforesaid officers and a director or by any two directors, provided nevertheless that the Board may appoint any other person or persons, from time to time, to make contracts and engagements on behalf of the Company, to make, draw, accept and endorse bills of exchange and promissory notes on behalf of the Company and to execute deeds, transfers, mortgages, charges, hypothecs, leases, assignments and all other documents on behalf of the Company. The Company's seal may be affixed to such documents as require the same by any of the persons executing such documents in accordance with the foregoing provisions of this article.

16. **BANKING**—The Company's bank accounts shall be kept in such bank or banks, or such trust company or trust companies, or any firms or corporations carrying on a banking business as the Board may from time to time determine. All cheques, drafts, notes, acceptances or orders for the payment of money shall be signed by the chairman of the Board, the president or a vice-president who is also a director and the secretary or treasurer or by such other officer or officers or such other person or persons as the Board may from time to time appoint, provided that bills of exchange, promissory notes or cheques or orders for the payment of money may be endorsed for deposit to the credit of the Company with any banker of the Company by any one of the following, viz: the chairman of the Board, president, a vice-president who is also a director, the manager or general manager, secretary, treasurer or such other person or persons as the Board may from time to time appoint for that purpose, or if the Board so determine, by means of a rubber stamp. If authorized by resolution of the Board, the signature of any officer or other person authorized to sign cheques may be engraved, lithographed or otherwise mechanically reproduced in facsimile thereon, and in such event and subject to the terms and conditions set forth or provided for in such resolution having been complied with, such facsimile signature shall for all purposes be deemed to be the signature of the officer or person whose signature it reproduces and shall be binding upon the Company.

Shares

17. **PAYMENT OF COMMISSIONS**—The Board, subject to the provisions of The Corporations Act and the letters patent of the Company, may pay commissions to persons in consideration of their subscribing or agreeing to subscribe, whether absolutely or conditionally, for shares of the Company, or procuring or agreeing to procure subscriptions, whether absolute or conditional, for such shares but no such commission shall exceed twenty-five percent of the amount of the subscription.

18. **ALLOTMENT**—The Board may from time to time allot the authorized and unissued shares of the Company, including any shares created by supplementary letters patent increasing or otherwise varying the capital of the Company, to such person or persons or class or classes of persons as the Board shall by resolution determine. The Board may also from time to time grant options to purchase any of such authorized and unissued shares to any person for such consideration and upon such terms as the Board may fix.

19. **CALLS**—The Board may from time to time by resolution call in and by notice thereof in writing in accordance with The Corporations Act, demand from the shareholders the whole or any part of the amount unpaid on shares held by them, at such times and places and in such payments or instalments as the Board thinks fit or the terms of allotment and issue of such shares require or allow.

If after demand made as aforesaid, any call or instalment thereof is not paid in accordance with the demand, the Board may forfeit any shares as provided in The Corporations Act.

20. **SHARE CERTIFICATES**—Share certificates shall be in such form or forms as the Board may from time to time approve. Unless otherwise ordered by the Board, they shall be signed by the president or a vice-president who is a director and by the secretary or an assistant secretary and need not be under the corporate seal; provided that certificates representing shares in respect of which a transfer agent has been appointed shall not be valid unless countersigned by or on behalf of such transfer agent. If authorized by resolution of the Board, the signature of one of the signing officers, or in the case of share certificates representing shares in respect of which a transfer agent has been appointed, the signatures of both signing officers, may be printed, engraved, lithographed, or otherwise mechanically reproduced in facsimile upon share certificates and every such facsimile signature shall for all purposes be deemed to be the signature of the officer whose signature it reproduces and shall be binding upon the Company provided the share certificate is otherwise validly issued. Share certificates otherwise valid shall continue to be valid notwithstanding that one or both of the officers whose signature (whether manual or facsimile) appears thereon no longer holds office at the date of issue or delivery thereof.

21. **REFUSAL TO REGISTER TRANSFER**—Except where the shares are listed on a recognized stock exchange, the Board may refuse to permit the registration of a transfer of fully paid shares of the Company registered in the name of a shareholder who is indebted to the Company.

22. **TRANSFER AGENT AND REGISTRAR**—The Board may from time to time by resolution appoint (or remove) a transfer agent or a registrar (who may, but need not be the same individual or company) and one or more branch transfer agents or registrars (who may, but need not be the same individual or company), for the shares of the Company and may provide for the transfer of shares in one or more places and may provide that shares will be interchangeably transferable or otherwise.

23. **REPLACEMENT OF SHARE CERTIFICATES**—The Board may by resolution prescribe, either generally or in any particular case, the terms and conditions upon which a new share certificate may be issued in lieu of and upon cancellation of a share certificate which has become mutilated or in substitution for a share certificate which has been lost, stolen or destroyed, and in any such case the Board may require the applicant

to provide such indemnification of the Company and its transfer agents and registrars as the Board may deem fit.

24. **TRANSFER OF SHARES**—Shares of the Company shall be transferable only on the register of transfers or on one of the branch registers of transfers (if any) kept by or for the Company in respect thereof, by the registered holder of such shares in person or by his attorney duly appointed in writing or lawful successor, upon surrender and cancellation of the certificate representing such shares properly endorsed or accompanied by a properly executed instrument of transfer, subject to the provisions of The Corporations Act, and in form and substance satisfactory to the Company and with evidence of the legal sufficiency thereof satisfactory to the Company and/or counsel of the Company.

25. **CLOSING REGISTER**—The Board may by resolution close the register of transfers and the branch register or registers of transfers, if any, for a period of time not exceeding forty-eight hours, exclusive of Saturdays and holidays (as defined by The Interpretation Act), immediately preceding any meeting of the shareholders, and notice of every such closing shall be given as required by The Corporations Act.

26. **RECORD DATE**—The Board may fix in advance a date preceding by not more than thirty-one days the date for the payment of any dividend or the date for the issue of any warrant or other evidence of right to subscribe for shares or securities of the Company, as a record date for the determination of the persons entitled to receive payment of such dividend or to exercise the right to subscribe for such shares or securities, as the case may be, and in every such case only such persons as shall be shareholders of record at the close of business on the date so fixed shall be entitled to receive payment of such dividend or to exercise the right to subscribe for such shares or securities and to receive the warrant or other evidence in respect of such right, as the case may be.

Directors

27. **QUALIFICATIONS**—Each director shall be twenty-one or more years of age, and within ten days after his election and throughout the remainder of his term of office shall be the holder of at least one share of the Company and not in arrear in respect of any call.

28. **POWERS, NUMBER OF DIRECTORS AND QUORUM**—The affairs of the Company shall be managed by its Board of directors. Until changed by special resolution or supplementary letters patent the number of the directors of the Company shall be twelve of whom five shall constitute a quorum for the transaction of business at any meeting of directors. Notwithstanding vacancies, the remaining directors may exercise all the powers of the Board so long as a quorum of the Board remains in office.

29. **ELECTION AND TERM**—The election of directors shall take place yearly and all the directors then in office shall retire, but if qualified, are eligible for re-election. If an election of directors is not held at the proper time, the directors shall continue in office until their successors are elected. The election may be by a resolution of the shareholders passed on a show of hands unless a ballot be demanded by any shareholder.

30. **VACANCIES**—The Board may by resolution fill any casual vacancy or vacancies on the Board caused by death, retirement, disqualification or otherwise, or fill any vacancy or vacancies created by an increase in the number of directors, without holding an election by ballot. A director so elected to fill a casual vacancy shall hold office for the balance of the unexpired term of his predecessor, or in the case of an increase in the number of directors on the Board, for the remainder of the term of office of the Board.

31. **MEETINGS OF DIRECTORS**—Meetings of the directors may be held at the head office of the Company or elsewhere within or without the Province of Ontario from time to time. Directors' meetings may be called by the chairman of the Board, the president or a vice-president who is a director or by any two directors, and the secretary shall call meetings when directed or authorized by the chairman of the Board, the president or by a vice-president who is a director or by any two directors. Notice of any such meeting shall be given to each of the directors not less than forty-eight hours, exclusive of Saturdays and holidays (as defined in The Interpretation Act), before the meeting is to take place; provided that no notice shall be required to be given of any meeting of directors held for the sole purpose of organization and the election and appointment of officers immediately following any annual meeting and no notice of a meeting shall be necessary if all the directors are present or if those absent waive notice thereof or give their consent in writing to such meeting being held.

32. **VOTES TO GOVERN**—At all meetings of the Board every question shall be decided by a majority of the votes cast on the question; and in case of an equality of votes the chairman of the meeting shall be entitled to a second or casting vote in addition to his original vote.

33. **REMUNERATION OF DIRECTORS**—The Board is authorized to fix from time to time by resolution the remuneration of the directors as directors of the Company and of the chairman of the Board as such and of the president as president of the Company and to allow and pay out of the funds of the Company, from time to time, to the president and other directors such amounts as the Board may deem proper for fees, salary,

commission or other remuneration for services performed or to be performed or both, and for expenses incurred or to be incurred or both in connection with the Company's affairs. Any remuneration so payable to a director who is also an officer or employee of the Company or who serves it in any professional capacity, shall unless the Board otherwise directs, be in addition to his salary as such officer or employee or to his professional fees, as the case may be. The directors shall also be paid their reasonable out-of-pocket expenses incurred in attending Board, executive committee or shareholders' meetings or otherwise in respect to the performance by them of their duties, unless the Board otherwise directs.

34. PROTECTION OF DIRECTORS AND OFFICERS—No director or officer for the time being of the Company shall be liable for the acts, receipts, neglects or defaults of any other director or officer or employee or for joining in any receipts or other acts for conformity, or for any loss, damage or expenses happening to the Company through the insufficiency or deficiency of title to any property acquired by the Company or for the insufficiency or deficiency of any security in or upon which any of the moneys of or belonging to the Company shall be placed out or invested or for any loss or damage arising from the bankruptcy, insolvency or tortious act of any person, firm or corporation with whom or which any moneys, securities or effects of the Company shall be lodged or deposited or for any loss occasioned by any error of judgment or oversight on his part, or for any other loss, damage or misfortune whatever which may happen in the execution of the duties of his respective office or trust or in relation thereto, unless the same shall happen by or through his own wilful neglect, or wilful default or dishonesty.

35. INDEMNITY OF DIRECTORS AND OFFICERS—Every director and every officer of the Company and his heirs, executors and administrators, and estate and effects, respectively, shall, from time to time and at all times, be indemnified and saved harmless out of the funds of the Company, from and against:—

- (a) all costs, charges and expenses whatsoever which such director or officer sustains or incurs in or about any action, suit or proceeding which is brought, commenced or prosecuted against him, for or in respect of any act, deed, matter or thing whatsoever, made, done or permitted by him, in or about the execution of the duties of his office (or alleged or purported so to be); and
- (b) all other costs, charges and expenses which he sustains or incurs in or about or in relation to the affairs of the Company, except such costs, charges or expenses as are occasioned by his own wilful neglect or default.

36. INTEREST OF DIRECTORS IN CONTRACTS—

- (a) Every director of the Company who is in any way directly or indirectly interested in a proposed contract or a contract with the Company shall declare his interest at a meeting of the directors of the Company;
- (b) In the case of a proposed contract, the said declaration of interest shall be made at the meeting of the directors at which the question of entering into the contract is first taken into consideration or, if the director is not at the date of that meeting interested in the proposed contract, at the next meeting of the directors held after he becomes so interested; and, in a case where the director becomes interested in a contract after it is made, the declaration shall be made at the first meeting of the directors held after he becomes so interested;
- (c) A general notice given to the directors of the Company by a director to the effect that he is a shareholder of or otherwise interested in any other company, or is a member of a specified firm and is to be regarded as interested in any contract made with such other company or firm shall be deemed to be a sufficient declaration of interest in relation to a contract so made, but no such notice is effective unless it is given at a meeting of the directors or the director takes reasonable steps to ensure that it is brought up and read at the next meeting of the directors after it is given;
- (d) If a director has made a declaration of his interest in a proposed contract or contract in compliance with this article and has not voted in respect of the contract, he is not accountable to the Company or to any of its shareholders or creditors for any profit realized from the contract, and the contract is not voidable by reason only of his holding that office or of the fiduciary relationship established thereby;
- (e) Notwithstanding anything contained in this article, a director of the Company is not accountable to the Company or to any of its shareholders or creditors for any profit realized from such contract and the contract is not by reason only of his interest therein voidable if it is confirmed by a majority of the votes cast at a general meeting of the shareholders duly called for that purpose and if his interest in the contract is declared in the notice calling the meeting.

37. LOANS TO EMPLOYEES—The Board is hereby authorized on behalf of the Company from time to time:

- (a) to make loans to bona fide full-time employees of the Company whether or not they are shareholders or directors, with a view to enabling them to purchase or erect dwelling houses for their own occupation, and may take from such employees mortgages or other securities for the repayment of such loans; or

- (b) to provide, in accordance with a scheme for the time being in force, money by way of loan for the purchase by trustees of fully paid shares of the Company, to be held by or for the benefit of bona fide employees of the Company, whether or not they are shareholders or directors; or
- (c) to make or to guarantee loans to bona fide employees of the Company, other than directors, whether or not they are shareholders, with a view to enabling them to purchase fully paid shares of the Company to be held by them by way of beneficial ownership.

Meetings of Shareholders

38. **ANNUAL MEETING**—The annual meeting of the shareholders shall be held at the head office of the Company or elsewhere within the Province of Ontario at such time and on such day in each year as the Board may from time to time determine, to receive the reports and the financial statement as required by The Corporations Act, to elect directors, appoint auditors and to fix or authorize the Board to fix the auditors' remuneration, and to transact such other business as may properly be brought before the meeting.

39. **GENERAL MEETING**—The Board on its own motion may at any time call a general meeting of the shareholders of the Company for the transaction of any business. General meetings of the Company shall be held at the head office of the Company or elsewhere within the Province of Ontario, at such time and on such day as the Board may determine. Notice calling a general meeting shall specify the general nature of the business to be presented at such meeting and give such further information as may in the circumstances appear to the Board requisite.

40. **NOTICES**—No public notice or advertisement of any annual meeting or of any general meeting of shareholders of the Company shall be required, but notice of the time and place of each such meeting shall be given in the manner hereinafter in this by-law provided, not less than ten days before the day on which the meeting is to be held, to the auditor of the Company and to each shareholder of record at the close of business on the day on which the notice is given who is entered on the books of the Company as owner of one or more shares carrying the right to vote at the meeting. Notices may be signed by the chairman of the Board, the president, a vice-president who is a director, the secretary or an assistant secretary, or such other person as the Board may from time to time appoint for that purpose; provided always that meetings of the shareholders of the Company may be held at any time and at any place authorized by this by-law without notice if all the shareholders of the Company entitled to vote thereat are present in person or represented thereat by proxy duly appointed, or if those not so present or represented by proxy waive notice of such meeting, and if the auditor is present or waives notice of such meeting, and at any such meeting any business may be transacted which the Company at annual or general meetings may transact.

41. **ADJOURNED MEETINGS**—The chairman presiding at a meeting of shareholders may, with the consent of the meeting and subject to such conditions as the meeting may prescribe, adjourn the meeting from time to time and from place to place. Whenever any meeting of shareholders is lawfully adjourned, any business which might have been transacted at the original meeting may without further or other notice be transacted at any such adjourned meeting, and at the adjourned meeting the same powers may be exercised as at the original meeting.

42. **QUORUM**—Three persons present in person and each entitled to vote thereat shall constitute a quorum for the transaction of business at any meeting of shareholders.

43. **RIGHT TO VOTE**—At every meeting of shareholders every shareholder who is entered in the books of the Company as the holder of one or more shares carrying the right to vote at such meeting shall have the right to attend such meeting in person or to be represented thereat by a proxy who may vote on his behalf but no shareholder in arrear in respect of any call shall be entitled to vote in person or by a proxy at any meeting of the shareholders of the Company. An executor, administrator, committee of a mentally incompetent person, guardian or trustee and, where a corporation is such executor, administrator, committee, guardian or trustee of a testator, intestate, mentally incompetent person, ward or cestui que trust, any person duly appointed a proxy for such corporation, upon filing with the secretary of the meeting sufficient proof of his appointment, shall represent the shares in his or its hands at all meetings of the shareholders of the Company and may vote accordingly as a shareholder in the same manner and to the same extent as the shareholder of record. If there be more than one executor, administrator, committee, guardian or trustee, the provisions of article 49 of this By-Law Number 1 shall apply.

44. **PROXIES**—Every shareholder, including a corporate shareholder, entitled to vote at meetings of shareholders, may by instrument in writing, appoint a proxy, who need not be a shareholder, to attend and act at the meeting in the same manner, to the same extent, and with the same power, as if the shareholder were present in person at the meeting. The instrument appointing a proxy shall be in writing under the hand of the appointor or of his attorney, authorized in writing, or if the appointor is a corporation, under the corporate seal or under the hand of an officer or attorney so authorized, and shall cease to be valid after the

expiration of one year from the date thereof. The instrument appointing a proxy shall contain the date thereof and may be in such form as the directors may from time to time prescribe, or if not so prescribed, in such other form as the chairman of the meeting may accept as sufficient. The Board may by resolution fix a time not exceeding forty-eight hours excluding Saturdays and holidays (as defined in The Interpretation Act) preceding any meeting of the shareholders of the Company before which time instruments appointing proxies to be used at that meeting must be deposited with the Company, and any period of time so fixed shall be specified in the notice calling the meeting.

45. **PERSONS ENTITLED TO BE PRESENT**—The only persons entitled to attend a meeting of shareholders shall be those entitled to vote thereat, and the auditor of the Company and such others who although not entitled to vote thereat, are entitled or required under the provisions of The Corporations Act or the by-laws of the Company to be present at the meeting. Any other person may be admitted to a meeting of shareholders only on the invitation of the chairman of the meeting or with the consent of the meeting.

46. **REPORTS TO SHAREHOLDERS**—Ten days or more before the date of the annual meeting of shareholders, a copy of the financial statement and a copy of the auditor's report shall be sent by prepaid mail to each shareholder at his last address as shown on the books of the Company.

47. **SCRUTINEERS**—At each meeting of shareholders one or more scrutineers may be appointed by the chairman to serve at the meeting. Such scrutineers need not be shareholders of the Company.

48. **VOTES TO GOVERN**—At all meetings of shareholders every question shall, unless otherwise required by the letters patent or by-laws of the Company or by law, be decided by the majority of the votes duly cast on the question.

49. **VOTING BY JOINT SHAREHOLDERS**—If shares are held jointly by two or more persons, any one of them present at a meeting of the shareholders of the Company, may, in the absence of the other or others, vote thereon, but, if more than one of them is present or represented by proxy, they shall vote together on the shares jointly held.

50. **SHOW OF HANDS**—At all meetings of shareholders every question shall be decided by a show of hands unless a poll thereon be required by the chairman or be demanded by any shareholder entitled to vote who is present in person or by his proxy if so represented. Upon a show of hands every shareholder entitled to vote who is present in person or his proxy if so represented shall have one vote. After a show of hands has been taken upon any question the chairman may still require or any shareholder entitled to vote who is present in person or his proxy if so represented may still demand a poll thereon. Whenever a vote by show of hands shall have been taken upon a question, unless a poll thereon be so required or demanded, a declaration by the chairman of the meeting that the vote upon the question has been carried or carried by a particular majority or not carried and an entry to that effect in the minutes of the proceedings at the meeting shall be prima facie evidence of the fact without proof of the number or proportion of the votes recorded in favour of or against any resolution or other proceedings in respect of the said question, and the result of the vote so taken shall be the decision of the Company in annual or general meeting, as the case may be, upon the question. A demand for a poll may be withdrawn at any time prior to the taking of the poll.

51. **POLLS**—If a poll be required by the chairman of the meeting or be demanded by any shareholder who is present in person or by his proxy if so represented and if the demand be not withdrawn, a poll upon the question shall be taken in such manner as the chairman of the meeting shall direct. Upon a poll each shareholder who is present in person or represented by proxy shall be entitled to one vote for each share in respect of which he is entitled to vote at the meeting and the result of the poll shall be the decision of the Company in annual or general meeting, as the case may be, upon the question.

52. **CASTING VOTE**—In case of an equality of votes at any meeting of shareholders either upon a show of hands or upon a poll, the chairman of the meeting shall be entitled to a second or casting vote.

Fiscal Year

53. The fiscal year of the Company shall terminate on the 31st day of December in each year.

Dividends

54. Dividends may be declared by the Board and paid by the Company on the issued shares of the Company, from time to time, when in the judgment of the directors the profits of the Company warrant such payment, provided that no dividend shall bear interest as against the Company. The declaration of the Board as to the amount of net profits of the Company shall be conclusive in the absence of fraud on its part, and no director shall be bound to enquire into the accuracy of any statement of profit and loss certified to be correct by the auditor of the Company. The amount of any cash dividend shall be paid by warrant or cheque on the Company's bankers payable to the order of the person or persons entitled thereto and sent through the

ordinary post, postage prepaid, addressed to such person or persons at his or her address as the same appears in the books of the Company. Every such cheque or warrant shall be mailed at the risk of the payee or payees concerned and payment of the cheque or warrant purporting to be endorsed by the person or persons to whose order it is payable shall be a satisfaction of the dividend in respect of which such cheque or warrant was issued and of all liability of the Company in respect thereof, whether or not the endorsement was authentic. If any cheque or warrant for a dividend shall not be received by the person to whom it is sent as aforesaid or is defaced, lost or destroyed, a replacement cheque for a like amount may be issued by the Company on such terms as to evidence of such non-receipt, defacement, loss or destruction and as to indemnity as the Board may impose.

55. **JOINT SHAREHOLDERS**—If two or more persons are registered as joint holders of any share of the Company any one of such persons may give effectual receipts for the certificate issued in respect thereof and for any dividend, bonus, return of capital or other money payable or warrant issuable in respect of such share, but all the joint holders of a share of the Company shall be severally as well as jointly liable for the payment of all calls and demands payable in respect thereof.

Reserve Funds

56. The Board may in its discretion from time to time set aside such sums as it deems fit as a reserve fund or as reserve funds, to meet contingencies, for equalizing dividends, or special dividends, for repairing, improving and maintaining any of the property of the Company, replacing wasting assets or forming an insurance fund and for any other purpose or purposes which the Board shall in its absolute discretion think conducive to the interests of the Company, and may invest the several sums so set aside in such investments as it may think fit, and may from time to time deal with and vary such investments and dispose of all or any part thereof for the benefit of the Company and may divide any reserve fund into such special funds as it may think fit, with full power to employ the assets constituting the reserve funds in the business of the Company without being bound to keep the same separate from other assets. The Board may also carry forward to the accounts of the succeeding year or years any profit or balance of profit which it shall not think fit to divide or to place to reserve and the Board may from time to time in its discretion increase, reduce or abolish any reserve fund in whole or in part and may transfer the whole or any part of any reserve fund to surplus.

Information to Shareholders

57. No shareholder shall have any right to demand any information respecting the business of the Company or the conduct of the Company's affairs or to inspect the books, accounts, documents or registers of the Company except as permitted or conferred by The Corporations Act or other relevant statutes.

Giving of Notice

58. Any notice, communication or other document to be given by the Company to a shareholder, director or officer, or to the auditor of the Company, shall, save as otherwise provided in this by-law, be sufficiently given if delivered personally to the person to whom it is to be given, or if delivered to his last address as recorded in the books of the Company, or if mailed by prepaid post addressed to him at his last address as shown on the books of the Company or if sent by any means of wire or wireless or any other form of transmitted or recorded communication, addressed to him at such last address. A notice, communication or document so delivered shall be deemed to have been given when it is delivered personally or at the address aforesaid; and a notice, communication or document so mailed shall be deemed to have been given when deposited in a post office or public letter box; and a notice sent by any means of wire or wireless or any other form of transmitted or recorded communication shall be deemed to have been given when delivered to the appropriate communication company or agency or its representative for despatch. The accidental omission to give notice to any shareholder, director or officer or to the auditor, or the non-receipt by any shareholder, director or officer, or the auditor, of any such notice or any error in a notice not affecting the substance thereof, shall not invalidate such notice or any meeting called by such notice or any action taken by any such meeting or otherwise founded thereon. All notices with respect to any shares registered in more than one name may, if more than one address appears on the books of the Company in respect of such joint holding, be given to such joint shareholders at the first address so appearing, and notice so given shall be sufficient notice to all the holders of such shares.

Waiver of Notice

59. Any shareholder (or his duly appointed proxy), or director or officer, or the auditor, may waive any notice required to be given under any provision of the letters patent or by-laws of the Company or of The Corporations Act, and such waiver, whether given before or after the meeting or other event of which notice is required to be given, shall cure any default in giving such notice.

Appointment of Proxies for Meetings of Other Companies, etc.

60. The chairman of the Board, the president, any vice-president who is a director, the manager or general manager, the secretary or the treasurer, or any person appointed in writing for that purpose by any two of the aforementioned officers is hereby authorized and empowered to act as proxy for the Company at any meeting or meetings, whether annual or general, of shareholders or members of any company or corporation of which the Company is or may hereafter be at any time a shareholder or member, and at any meeting or meetings of any syndicate or unincorporated association of which the Company is or may hereafter become a member, and at any such meeting such proxy shall represent and vote upon and in respect of all shares of the capital stock of such other company or corporation or units or shares or interest of any kind in any syndicate or unincorporated association recorded in the name of the Company and any two of the aforementioned officers are hereby authorized to execute and affix the seal of the Company to any instrument or instruments appointing a proxy or proxies to represent the Company at any such meeting or meetings; and the production of an instrument of proxy so executed shall be conclusive evidence that the proxy has been regularly appointed.

Appointment of Proxies for Meetings of Bondholders, etc.

61. The chairman of the Board, the president, any vice-president who is a director, the manager or general manager, the secretary or the treasurer, or any person appointed in writing for that purpose by any two of the aforementioned officers is hereby authorized and empowered to act as proxy and attorney for the Company at any meeting or meetings whether ordinary or extraordinary of holders of bonds, debentures, notes or other securities issued by any other company or corporation and at any such meeting such proxy shall represent and vote upon and in respect of all bonds, debentures, notes or other securities issued by such other company or corporation held by the Company, and any two of the aforementioned officers are hereby authorized to execute and affix the seal of the Company to any instrument or instruments appointing a proxy or proxies to represent the Company at any such meeting or meetings and the production of an instrument of proxy so executed shall be conclusive evidence that the proxy has been regularly appointed.

Signing of Bonds, Debentures and Debenture Stock, etc., and Guarantees

62. The Board shall have power from time to time by resolution to provide that the signature or signatures of the officer or officers designated to sign bonds, debentures, debenture stock or other securities or interest coupons or other coupons of the Company, or guarantees to be endorsed by the Company on any bonds, debentures, or debenture stock or other securities of any other company or corporation may be engraved, lithographed or otherwise mechanically reproduced and in such event, subject to the provisions of any such resolution, any and all such bonds, debentures, debenture stock, or other securities, interest coupons and other coupons and guarantees of the Company so signed shall be deemed to have been manually signed by such officer or officers and shall be as valid to all intents and purposes as if they had been manually signed and this notwithstanding that any person whose signature is so reproduced thereon has ceased to be the officer so designated prior to the certification or delivery of any such bonds, debentures or debenture stock or other securities or prior to the issue and delivery of any such interest coupons or other coupons of the Company, or prior to the certification or delivery of the bonds, debentures, or debenture stock or other securities for which the guarantee was given.

Taking of Mortgages, etc.

63. The chairman of the Board, the president, any vice-president who is a director, the manager or general manager, the secretary or the treasurer, or any other person appointed by resolution of the Board for that purpose, is hereby authorized to take or accept for and on behalf of the Company from any person, firm or corporation, any mortgage, charge, or hypothec or bill of sale or assignment to or in favour of the Company, and to appear before a Notary of the Province of Quebec and execute on behalf of the Company any such hypothec relating to immoveables in the Province of Quebec and to file or register the same or cause the same to be filed or registered, and to make all proper affidavits, declarations or statements pertaining thereto.

Taking of Bills of Sale, Chattel Mortgages, etc.

64. The chairman of the Board, the president, any vice-president who is a director, the manager or general manager, the secretary or the treasurer, or any other person appointed by resolution of the Board for that purpose, is hereby authorized to take or accept for and on behalf of the Company, from any person, firm or corporation, any chattel mortgage, agreement to give a chattel mortgage, bill of sale or assignment to or in favour of the Company, of any personal property or any mortgage thereon and to file or register the same or

cause the same to be filed or registered and to sign and make all affidavits of bona fides required by any statute and all other proper affidavits, declarations or statements and to do all things necessary or expedient to effect such filings or registrations and from time to time to renew such filings or registrations and to do or cause to be done anything necessary or which any of them may deem necessary or expedient to maintain in effect, on foot or in force any mortgage or assignment of any personal property heretofore or hereafter made or executed in favour of or assigned to the Company, and for such purpose to sign and make all affidavits, declarations and statements (renewal or otherwise) which are or shall be required by law or which any of them may deem necessary or expedient as to the interest of the Company in any property or as to the amount due or the payment made on any such mortgage or on any other security or the good faith and absence from fraud in relation to any such mortgage or other security or as to any further or other particulars or matters relating thereto.

Voting at Municipal Elections

65. The chairman of the Board, the president, any vice-president who is a director, the manager or general manager, the secretary or the treasurer, or any other person appointed by resolution of the Board for that purpose is hereby authorized to vote for and on behalf of the Company in any municipal election held in any municipality in Canada in which the Company is entitled to vote.

NORANDA MINES LIMITED BY-LAW NUMBER 2

A By-law respecting the borrowing of money and the issue of securities.

The Board may from time to time:

- (a) Borrow money on the credit of the Company in such amounts and upon such terms as may be deemed necessary;
- (b) Limit or increase the amount to be borrowed;
- (c) Issue bonds, debentures, debenture stock, both perpetual and terminable, or other securities of the Company;
- (d) Pledge or sell such bonds, debentures or debenture stock or other securities for such sums and at such prices as may by the Board be deemed expedient or necessary;
- (e) Charge, mortgage, hypothecate, pledge, cede, or transfer all or any of the real and/or personal property (both present and future) of the Company, including book debts and unpaid calls, rights, powers, franchises and undertaking, to secure any such bonds, debentures, debenture stock or other securities or any money borrowed, or other debts, or any other obligation or liability of the Company, and any instrument of charge, mortgage, hypothecation, pledge, cession or transfer may contain such covenants, powers, provisos and agreements as the Board may think expedient or necessary;
- (f) Authorize any officer or director as may be designated by the Board to do all things necessary or which appear requisite for carrying out any transaction respecting the borrowing of money and the issue of securities which the Board may authorize or direct.

NORANDA MINES LIMITED BY-LAW NUMBER 3

A By-law to authorize the Board to acquire, hold, sell, and deal with investments.

The Board may from time to time and whenever it sees fit purchase or otherwise acquire, underwrite, obtain an interest in, hold, pledge or mortgage, sell, exchange or otherwise dispose of and generally deal and invest in shares of stock of domestic and foreign corporations, and in bonds, debentures, debenture stock, notes, subscription warrants, voting trust certificates, evidences of indebtedness, certificates of interest, and other obligations and securities of any nature however evidenced whether of domestic or foreign governments, municipalities, or other bodies politic, or of domestic or foreign corporations, associations, firms, trustees, depositories, syndicates or individuals; and, while the Company is the owner or holder thereof, exercise all the rights, powers and privileges of ownership, including the right to vote thereon.

NORANDA MINES LIMITED

BY-LAW NUMBER 4

A By-law to authorize the Board to acquire, hold and deal with certain real or personal property and to pay for same in whole or in part with shares of the Company.

The Board may from time to time and whenever it sees fit:

- (a) Acquire or undertake the whole or any part of the business, property and liabilities of any person or company carrying on any business that the Company is authorized to carry on or possessed of property suitable for the purposes of the Company;
- (b) Purchase, take on lease or in exchange, hire or otherwise acquire, and sell, lease or otherwise dispose of any personal property and any rights or privileges that the Board may think necessary or convenient for the purposes of the business of the Company and in particular any machinery, plant and stock-in-trade;
- (c) Acquire by purchase, lease or otherwise and hold any real estate or interest therein necessary or suitable for the actual use and occupation of the Company or for carrying on the Company's undertaking and, when no longer required, sell, exchange, alienate and convey the same;
- (d) Acquire by purchase, lease or otherwise and hold mining claims and rights, and sell, exchange or otherwise dispose of the same;
- (e) Take or give options for the purchase of any of the property mentioned in any of the preceding clauses of this by-law;
- (f) Pay for any property acquired or taken over or purchased under the provisions of this by-law, wholly or partly in shares of the Company fully or partly paid up.

NORANDA MINES LIMITED

BY-LAW NUMBER 5

A By-law to authorize the Company to pay dividends out of its funds derived from the operations of the Company.

The Company, being a mining company, is hereby authorized and empowered to declare and pay from time to time dividends out of its funds derived from the operations of the Company, notwithstanding that the value of the net assets of the Company may be thereby reduced to less than the issued capital of the Company if the payment of the dividends does not reduce the value of its remaining assets to an amount insufficient to meet all the liabilities of the Company exclusive of its issued capital.

NORANDA MINES LIMITED

BY-LAW NUMBER 6

A By-law to authorize an executive committee.

1. The number of directors on the board of directors of the Company being more than six, the directors of the Company be and they are hereby authorized to elect from among their number an executive committee consisting of not fewer than three and to delegate to the executive committee any powers of the board of directors, subject to the restrictions, if any, imposed from time to time by the directors.
2. Meetings of the executive committee may be held at the head office of the Company or elsewhere within or without the Province of Ontario from time to time.

NORANDA MINES LIMITED

BY-LAW NUMBER 7

A By-law authorizing the election of a Chairman of the Board of Directors.

1. There may be, if the Board of Directors so decide at any time, a Chairman of the Board of Directors and he shall be elected by the Directors from among their number.
2. The Chairman of the Board of Directors shall be the senior executive officer of the Company. He shall, when present, preside at all meetings of the Board of Directors, unless by resolution of the Board, the President is directed to preside at any meeting or meetings of the Board. The Chairman of the Board of Directors, if present and by resolution of the Board of Directors authorized to do so, shall also preside at any general meetings of the Company instead of the President. The Chairman of the Board of Directors shall have such other duties as may be assigned to him from time to time by resolution of the Board of Directors.
3. The President shall have the general supervision of the business and affairs of the Company and shall have and exercise all the powers and duties assigned to him by or pursuant to the By-laws of the Company and by law, except such as are assigned to the Chairman of the Board of Directors by or pursuant to this By-law.

NOTE: The above By-law Number 7 is By-law Number 29 of Noranda Mines, Limited and was enacted by the Directors of that company February 25, 1953 and confirmed by its shareholders April 24, 1953.

There may be in the history of the country some things which are not mentioned in the history of the country, but which are of great importance to the country.

The history of the country is a history of the people, and the people are the history of the country. The history of the country is a history of the people, and the people are the history of the country.

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